

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	4715	zwf or (g6p or glc6p or glucose-6-phosphate) adj (dh or dehydrogenase\$1) or g6pdh	US-PGPUB; USPAT	ADJ	OFF	2004/11/29 11:19
L2	13	1 same corynebacter\$	US-PGPUB; USPAT	ADJ	OFF	2004/11/29 11:20
L3	15	1 same ((amino adj acid or lysine or threonine or tryptophan or lys or thr or trp) near4 (biosynthes\$ or synthes\$10 or prepar\$10))	US-PGPUB; USPAT	ADJ	OFF	2004/11/29 11:21
(L4)	24	2 or 3	US-PGPUB; USPAT	ADJ	OFF	2004/11/29 11:21
L5	679	poxb or pyruvate oxidase\$1 or pox adj b	US-PGPUB; USPAT	ADJ	OFF	2004/11/29 12:11
L6	9	5 same corynebacter\$	US-PGPUB; USPAT	ADJ	OFF	2004/11/29 12:12
L7	15	5 same ((amino adj acid or lysine or threonine or tryptophan or lys or thr or trp) near4 (biosynthes\$ or synthes\$10 or prepar\$10))	US-PGPUB; USPAT	ADJ	OFF	2004/11/29 12:13
(L8)	20	6 or 7	US-PGPUB; USPAT	ADJ	OFF	2004/11/29 12:13

3/6/02

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	4715	zwf or (g6p or glc6p or glucose-6-phosphate) adj (dh or dehydrogenase\$1) or g6pdh	US-PGPUB; USPAT	ADJ	OFF	2004/11/29 11:19
L2	13	1 same corynebacter\$	US-PGPUB; USPAT	ADJ	OFF	2004/11/29 11:20
L3	15	1 same ((amino adj acid or lysine or threonine or tryptophan or lys or thr or trp) near4 (biosynthes\$ or synthes\$10 or prepar\$10))	US-PGPUB; USPAT	ADJ	OFF	2004/11/29 11:21
L4	24	2 or 3	US-PGPUB; USPAT	ADJ	OFF	2004/11/29 11:21

PGPUB-DOCUMENT-NUMBER: 20040214219

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040214219 A1

TITLE: Nucleotide sequences which code for the tal gene

PUBLICATION-DATE: October 28, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Dunican, L. K.	Galway		IE	
McCormack, Ashling	Athlone		IE	
Stapelton, Cliona	Roscrea		IE	
Burke, Kevin	Galway		IE	
Mockel, Bettina	Bielefeld		DE	

APPL-NO: 10/ 847610

DATE FILED: May 18, 2004

RELATED-US-APPL-DATA:

child 10847610 A1 20040518

parent division-of 09531266 20000320 US PENDING

non-provisional-of-provisional 60142915 19990709 US

US-CL-CURRENT: 435/6, 435/252.3, 435/320.1, 435/69.1, 530/350, 536/23.7

ABSTRACT:

The invention relates to an isolated polynucleotide from coryneform bacteria, comprising a polynucleotide sequence chosen from the group consisting of

- a) polynucleotide which is identical to the extent of at least 70% to a polynucleotide which codes for a polypeptide which comprises the amino acid sequences of SEQ ID NO. 2 or SEQ ID NO. 4,
- b) polynucleotide which codes for a polypeptide which comprises an amino acid sequence which is identical to the extent of at least 70% to the amino acid sequences of SEQ ID NO. 2 or SEQ ID NO. 4
- c) polynucleotide which is complementary to the polynucleotides of a) or b) and
- d) polynucleotide comprising at least 15 successive nucleotides of the polynucleotide sequences of a), b) or c)

and a process for the preparation of L-amino acids, which comprises carrying out the following steps:

- a) fermentation of the desired L-amino acid-producing bacteria in which at least the tal gene is amplified,
- b) concentration of the desired product in the medium or in the cells of the bacteria and
- c) isolation of the L-amino acid.

----- KWIC -----

Claims Text - CLTX (7):

13. A process for the fermentative preparation of L-threonine as claimed in

claim 8, wherein in coryneform microorganisms which in particular already produce L-threonine, one or more genes chosen from the group consisting of 13.1 at the same time the hom gene which codes for homoserine dehydrogenase or the hom.sup.dr allele which codes for a "feed back resistant" homoserine dehydrogenase, 13.2 the gap gene which codes for glyceraldehyde 3-phosphate dehydrogenase, 13.3 the pyc gene which codes for pyruvate carboxylase, 13.4 the mqo gene which codes for malate:quinone oxidoreductase, 13.5 the tkt gene which codes for transketolase, 13.6 the gnd gene which codes for 6-phosphogluconate dehydrogenase, 13.7 the zwf gene which codes for glucose 6-phosphate dehydrogenase, 13.8 the thrE gene which codes for threonine export, 13.9 the zwf gene, 13.10 the eno gene which codes for enolase, 13.11 the opcA gene is or are amplified, in particular over-expressed, at the same time.

PGPUB-DOCUMENT-NUMBER: 20040171130

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040171130 A1

TITLE: Novel glucose-6-phosphate dehydrogenase

PUBLICATION-DATE: September 2, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Yokoi, Haruhiko	Tokyo		JP	
Ando, Seiko	Tokyo		JP	
Ochiai, Keiko	Tokyo		JP	
Yonetani, Yoshiyuki	Tokyo		JP	
Hashimoto, Shin-ichi	Yamaguchi		JP	

APPL-NO: 10/ 312007

DATE FILED: December 23, 2002

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	DOC-ID	APPL-DATE
JP	2000-185789	2000JP-2000-185789	June 21, 2000

PCT-DATA:

APPL-NO: PCT/JP01/05113

DATE-FILED: Jun 15, 2001

PUB-NO:

PUB-DATE:

371-DATE:

102(E)-DATE:

US-CL-CURRENT: 435/190, 435/320.1 , 435/325 , 435/69.1 , 536/23.2

ABSTRACT:

The present invention relates to a novel glucose-6-phosphate dehydrogenase (hereinafter referred to as "G6PD") derived from a bacterium belonging to the genus Corynebacterium, a DNA encoding the enzyme, a recombinant DNA comprising the DNA, a transformant comprising the recombinant DNA, a transformant comprising the DNA on its chromosome, and a process for producing L-amino acid or G6PD which comprises culturing the transformant.

According to the present invention, a modified G6PD and a DNA encoding the G6PD are obtained, and the productivity of L-amino acid by a microorganism can be improved by using the modified G6PD.

----- KWIC -----

Abstract Paragraph - ABTX (1):

The present invention relates to a novel glucose-6-phosphate dehydrogenase (hereinafter referred to as "G6PD") derived from a bacterium belonging to the genus Corynebacterium, a DNA encoding the enzyme, a recombinant DNA comprising the DNA, a transformant comprising the recombinant DNA, a transformant comprising the DNA on its chromosome, and a process for producing L-amino acid

or G6PD which comprises culturing the transformant.

Summary of Invention Paragraph - BSTX (2):

[0001] The present invention relates to a novel glucose-6-phosphate dehydrogenase (hereinafter referred to as "G6PD") derived from a bacterium belonging to the genus Corynebacterium, a DNA encoding the enzyme, a recombinant DNA comprising the DNA, a transformant comprising the recombinant DNA, a transformant comprising the DNA on its chromosome, and a process for producing L-amino acid which comprises culturing the transformant.

US-PAT-NO: 6822084

DOCUMENT-IDENTIFIER: US 6822084 B1

TITLE: Corynebacterium glutamicum genes encoding stress,
resistance and tolerance proteins

DATE-ISSUED: November 23, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Pompejus; Markus	Freinsheim	N/A	N/A	DE
Kroger; Burkhard	Limburgerhof	N/A	N/A	DE
Schroder; Hartwig	Nussloch	N/A	N/A	DE
Zelder; Oskar	Speyer	N/A	N/A	DE
Haberhauer; Gregor	Limburgerhof	N/A	N/A	DE
Lee; Heung-Shick	Seoul	N/A	N/A	KR
Kim; Hyung-Joon	Seoul	N/A	N/A	KR

APPL-NO: 09/ 603208

DATE FILED: June 23, 2000

PARENT-CASE:

RELATED APPLICATIONS

This application claims priority to prior filed U.S. Provisional Patent Application Serial No. 60/141,031, filed Jun. 25, 1999, U.S. Provisional Patent Application Serial No. 60/142,692, filed Jul. 1, 1999, and also to U.S. Provisional Patent Application Serial No. 60/151,214, filed Aug. 27, 1999. This application also claims priority to German Patent Application No. 19930429.7, filed Jul. 1, 1999, German Patent Application No. 19931413.6, filed Jul. 8, 1999, German Patent Application No. 19931457.8, filed Jul. 8, 1999, German Patent Application No. 19931541.8, filed Jul. 8, 1999, German Patent Application No. 19932209.0, filed Jul. 9, 1999, German Patent Application No. 19932230.9, filed Jul. 9, 1999, German Patent Application No. 19932914.1, filed Jul. 14, 1999, German Patent Application No. 19940764.9, filed Aug. 27, 1999, and German Patent Application No. 19941382.7, filed Aug. 31, 1999. The entire contents of all of the aforementioned applications are hereby expressly incorporated herein in their entirety by this reference.

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	APPL-DATE
DE	199 30 429	July 1, 1999
DE	199 31 457	July 8, 1999
DE	199 31 541	July 8, 1999
DE	199 31 413	July 8, 1999
DE	199 32 209	July 9, 1999
DE	199 32 230	July 9, 1999
DE	199 32 914	July 14, 1999
DE	199 40 764	August 27, 1999
DE	199 41 382	August 31, 1999

US-CL-CURRENT: 536/23.7, 435/252.3, 435/69.1, 530/350, 536/23.1
, 536/24.1, 536/24.3, 536/24.33

ABSTRACT:

Isolated nucleic acid molecules, designated SRT nucleic acid molecules, which encode novel SRT proteins from *Corynebacterium glutamicum* are described. The invention also provides antisense nucleic acid molecules, recombinant expression vectors containing SRT nucleic acid molecules, and host cells into which the expression vectors have been introduced. The invention still further provides isolated SRT proteins, mutated SRT proteins, fusion proteins, antigenic peptides and methods for the improvement of production of a desired compound from *C. glutamicum* based on genetic engineering of SRT genes in this organism.

2 Claims, 0 Drawing figures

Exemplary Claim Number: 1

----- KWIC -----

Detailed Description Paragraph Table - DETL (4):

E08180, Sep. 20, 1994 E08181, E08182 E08232 Acetohydroxy-acid isomeroreductase Inui, M. et al. "Gene DNA coding acetohydroxy acid isomeroreductase," Patent: JP 1994277067-A 1 Oct. 4, 1994 E08234 secE Asai, Y. et al. "Gene DNA A coding for translocation machinery of protein," Patent: JP 1994277073-A 1 Oct. 4, 1994 E08643 FT aminotransferase and desthiobiotin Hatakeyama, K. et al. "DNA fragment having promoter function in synthetase promoter region coryneform bacterium," Patent: JP 199503476-A 1 Feb. 3, 1995 E08646 Biotin synthetase Hatakeyama, K. et al. "DNA fragment having promoter function in coryneform bacterium," Patent: JP 1995031476-A 1 Feb. 3, 1995 E08649 Aspartase Kohama, K. et al. "DNA fragment having promoter function in coryneform bacterium," Patent: JP 1995031478-A Feb. 3, 1995 E08900 Dihydrodipicolinate reductase Madori, M. et al. "DNA fragment containing gene coding Dihydrodipicolinate acid reductase and utilization thereof," Patent: JP 1995075578-A 1 Mar. 20, 1995 E08901 Diaminopimelic acid decarboxylase Madori, M. et al. "DNA fragment containing gene coding Diaminopimelic acid decarboxylase and utilization thereof," Patent: JP 1995075579-A 1 Mar. 20, 1995 E12594 Serine hydroxymethyltransferase Hatakeyama, K. et al. "Production of L-tryptophan," Patent: JP 1997028391-A 1 Feb. 4, 1997 E12760, transposase Moriya, M. et al. "Amplification of gene using artificial transposon," Patent: E12759, JP 199707029J-A Mar. 18, 1997 E12758 E12764 Arginyl-tRNA synthetase; diaminopimelic Moriya, M. et al. "Amplification of gene using artificial transposon," Patent: acid decarboxylase JP 1997070291-A Mar. 18, 1997 E12767 Dihydrodipicolinic acid synthetase Moriya, M. et al. "Amplification of gene using artificial transposon," Patent: JP 1997070291-A Mar. 18, 1997 E12770 aspartokinase Moriya, M. et al. "Amplification of gene using artificial transposon," Patent: JP 1997070291-A Mar. 18, 1997 E12773 Dihydrodipicolinic acid reductase Moriya, M. et al. "Amplification of gene using artificial transposon," Patent: JP 1997070291-A Mar. 18, 1997 E13655 Glucose-6-phosphate dehydrogenase Hatakeyama, K. et al. "Glucose-6-phosphate dehydrogenase and DNA capable of coding the same," Patent: JP 1997224661-A Sep. 2, 1997 L01508 IlvA Threonine dehydratase Moeckel, B. et al. "Functional and structural analysis of the threonine dehydratase of Corynebacterium glutamicum," J Bacteriol., 174:8065-8072 (1992) L07603 EC 4.2.1.15 3-deoxy-D-arabinoheptulosonate-7- Chen, C. et al. "The cloning and nucleotide sequence of Corynebacterium phosphate synthase glutamicum 3-deoxy-D-arabinoheptulosonate-7-phosphate synthase gene," FEMS Microbiol. Lett., 107:223-230 (1993) L09232 IlvB; ilvN; Acetohydroxy acid synthase large subunit; Keilhauer, C. et al. "Isoleucine synthesis in Corynebacterium glutamicum: ilvC Acetohydroxy acid synthase small subunit; molecular analysis

of the *ilvB-ilvN-ilvC* operon," J. Bacteriol., 175(17):5595-5603 (1993) L18874 PtsM Phosphoenolpyruvate sugar Fouet, A et al. "Bacillus subtilis sucrose-specific enzyme II of the phosphotransferase system: expression in Escherichia coli and homology to enzymes II from enteric bacteria," PNAS USA, 84(24):8773-8777 (1987); Lee, J. K. et al. "Nucleotide sequence of the gene encoding the Corynebacterium glutamicum mannose enzyme II and analyses of the deduced protein sequence," FEMS Microbiol. Lett., 119(1-2):137-145 (1994) L27123 aceB Malate synthase Lee, H-S. et al. "Molecular characterization of aceB, a gene encoding malate synthase in Corynebacterium glutamicum," J. Microbiol. Biotechnol., 4(4):256-263 (1994) L27126 Pyruvate kinase Jetten, M. S. et al. "Structural and functional analysis of pyruvate kinase from Corynebacterium glutamicum," Appl. Environ. Microbiol., 60(7):2501-2507 (1994) L28760 aceA Isocitrate lyase L35906 dtxR Diphtheria toxin repressor Oguiza, J. A. et al. "Molecular cloning, DNA sequence analysis, and characterization of the Corynebacterium diphtheriae dtxR from Brevibacterium lactofermentum," J. Bacteriol., 177(2):465-467 (1995) M13774 Prephenate dehydratase Follettie, M. T. et al. "Molecular cloning and nucleotide sequence of the Corynebacterium glutamicum pheA gene," J. Bacteriol., 167:695-702 (1986) M16175 5S rRNA Park, Y-H. et al. "Phylogenetic analysis of the coryneform bacteria by 56 rRNA sequences," J. Bacteriol., 169:1801-1806 (1987) M16663 trpE Anthranilate synthase, 5' end Sano, K. et al. "Structure and function of the trp operon control regions of Brevibacterium lactofermentum, a glutamic-acid-producing bacterium," Gene, 52:191-200 (1987) M16664 trpA Tryptophan synthase, 3' end Sano, K. et al. "Structure and function of the trp operon control regions of Brevibacterium lactofermentum, a glutamic-acid-producing bacterium," Gene, 52:191-200 (1987) M25819 Phosphoenolpyruvate carboxylase O'Regan, M. et al. "Cloning and nucleotide sequence of the Phosphoenolpyruvate carboxylase-coding gene of Corynebacterium glutamicum ATCC13032," Gene, 77(2):237-251 (1989) M85106 23S rRNA gene insertion sequence Roller, C. et al. "Gram-positive bacteria with a high DNA G + C content are characterized by a common insertion within their 23S rRNA genes," J. Gen. Microbiol., 138:1167-1175 (1992) M85107, 23S rRNA gene insertion sequence Roller, C. et al. "Gram-positive bacteria with a high DNA G + C content are M85108 characterized by a common insertion within their 23S rRNA genes," J. Gen. Microbiol., 138:1167-1175 (1992) M89931 aecD; brnQ; Beta C-S lyase; branched-chain amino acid Rossol, I. et al. "The Corynebacterium glutamicum aecD gene encodes a C-S yhbW uptake carrier; hypothetical protein yhbW lyase with alpha, beta-elimination activity that degrades aminoethylcysteine," J. Bacteriol., 174(9):2968-2977 (1992); Tauch, A. et al. "Isoleucine uptake in Corynebacterium glutamicum ATCC 13032 is directed by the brnQ gene product," Arch. Microbiol., 169(4):303-312 (1998) S59299 trp Leader gene (promoter) Herry, D. M. et al. "Cloning of the trp gene cluster from a tryptophan- hyperproducing strain of Corynebacterium glutamicum: identification of a mutation in the trp leader sequence," Appl. Environ. Microbiol., 59(3):791-799 (1993) U11545 trpD Anthranilate phosphoribosyltransferase O'Gara, J. P. and Dunican, L. K. (1994) Complete nucleotide sequence of the Corynebacterium glutamicum ATCC 21850 trpD gene:" Thesis, Microbiology Department, University College Galway, Ireland U13922 cglIIM; Putative type II 5-cytosine Schafer, A. et al. "Cloning and characterization of a DNA region encoding a cglIIR; cglIIR methyltransferase; putative type II stress-sensitive restriction system from Corynebacterium glutamicum ATCC restriction endonuclease; putative type I or 13032 and analysis of its role in intergeneric conjugation with Escherichia coli," J. Bacteriol., 176(23):7309-7319 (1994); Schafer, A. et al. "The Corynebacterium glutamicum cglIIM gene encoding a 5-cytosine in an McrBC- deficient Escherichia coli strain," Gene, 203(2):95-101 (1997) U14965 recA U31224 ppx Ankri, S. et al. "Mutations in the Corynebacterium glutamicum proline biosynthetic pathway: A natural bypass of the proA step," J. Bacteriol., 178(15):4412-4419 (1996) U31225 proC

L-proline: NADP⁺ 5-oxidoreductase Ankri, S. et al. "Mutations in the Corynebacterium glutamicum proline biosynthetic pathway: A natural bypass of the proA step," J. Bacteriol., 178(15):4412-4419 (1996) U31230 obg; proB; ?; gamma glutamyl kinase; similar to D- Ankri, S. et al. "Mutations in the Corynebacterium glutamicum unkdh isomer specific 2-hydroxyacid biosynthetic pathway: A natural bypass of the proA step," J. Bacteriol., 178(15):4412-4419 (1996) U31281 bioB Biotin synthase Serebriiskii, I. G., "Two new members of the bio B superfamily: Cloning, sequencing and expression of bio B genes of *Methylobacillus flagellatum* and Corynebacterium glutamicum," Gene, 175:15-22 (1996) U35023 thtR; accBC Thiosulfate sulfurtransferase; acyl CoA Jager, W. et al. "A Corynebacterium glutamicum gene encoding a two-domain carboxylase protein similar to biotin carboxylases and biotin-carboxyl-carrier proteins," Arch. Microbiol., 166(2):76-82 (1996) U43535 cmr Multidrug resistance protein Jager, W. et al. "A Corynebacterium glutamicum gene conferring multidrug resistance in the heterologous host *Escherichia coli*," J. Bacteriol., 179(7):2449-2451 (1997) U43536 clpB Heat shock ATP-binding protein U53587 aphA-3 3'5"-aminoglycoside phosphotransferase U89648 Corynebacterium glutamicum unidentified sequence involved in histidine biosynthesis, partial sequence X04960 trpA; trpB; Tryptophan operon Matsui, K. et al. "Complete nucleotide and deduced amino acid sequences of trpC; trpD; the *Brevibacterium lactofermentum* tryptophan operon," Nucleic Acids Res., 14(24):10113-10114 (1986) trpL X07563 lys A DAP decarboxylase (meso-diaminopimelate Yeh, P. et al. "Nucleic sequence of the lysA gene of Corynebacterium glutamicum decarboxylase, EC 4.1.1.20) glutamicum and possible mechanisms for modulation of its expression," Mol. Gen. Genet., 212(1):112-119 (1988) X14234 EC 4.1.1.31 Phosphoenolpyruvate carboxylase Eikmanns, B. J. et al. "The Phosphoenolpyruvate carboxylase gene of Corynebacterium glutamicum: Molecular cloning, nucleotide sequence, and expression," Mol. Gen. Genet., 218(2):330-339 (1989); Lepiniec, L. et al. "Sorghum Phosphoenolpyruvate carboxylase gene family: structure, function and molecular evolution," Plant. Mol. Biol., 21 (3):487-502 (1993) X17313 fda Fructose-bisphosphate aldolase Von der Osten, C. H. et al. "Molecular cloning, nucleotide sequence and fine- structural analysis of the Corynebacterium glutamicum fda gene: structural comparison of *C. glutamicum* fructose-1,6-bisphosphate aldolase to class I and class II

US-PAT-NO: 6797509

DOCUMENT-IDENTIFIER: US 6797509 B1

TITLE: Nucleotide sequences which code for the tal gene

DATE-ISSUED: September 28, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Duncan; Laurence Kieran	Iate of Galway	N/A	N/A	IE
McCormack; Ashling	Athlone	N/A	N/A	IE
Stapelton; Cliona	Roscrea	N/A	N/A	IE
Burke; Kevin	Galway	N/A	N/A	IE
Mockel; Bettina	Bielefeld	N/A	N/A	DE

APPL-NO: 09/ 531266

DATE FILED: March 20, 2000

PARENT-CASE:

CROSS REFERENCE TO RELATED APPLICATIONS

The present application claims the benefit of Provisional Application No. 60/142,915, filed on Jul. 9, 1999.

US-CL-CURRENT: 435/252.3, 435/193, 435/252.33, 435/320.1, 536/23.2, 536/23.7

ABSTRACT:

The invention is directed to DNA sequences from coryneform bacteria which encode a protein having transaldolase enzymatic activity. The invention also encompasses methods for the fermentative production of L-amino acids using bacteria in which the gene encoding transaldolase is amplified.

19 Claims, 1 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 1

----- KWIC -----

Detailed Description Text - DETX (53):

Thus, for example, for the preparation of L-threonine, one or more genes chosen from the group consisting of at the same time the hom gene which codes for homoserine dehydrogenase (Peoples et al., Molecular Microbiology 2, 63-72 (1988)) or the hom.sup.dr allele which codes for a "feed back resistant" homoserine dehydrogenase (Archer et al., Gene 107, 53-59 (1991), the gap gene which codes for glycerolaldehyde 3-phosphate dehydrogenase (Eikmanns (1992), Journal of Bacteriology 174:6076-6086), the pyc gene which codes for pyruvate carboxylase (DE-A-198 31 609), the mqo gene which codes for malate:quinone oxidoreductase (Molenaar et al., European Journal of Biochemistry 254, 395-403 (1998)), the tkt gene which codes for transketolase (accession number AB023377

of the databank of European Molecular Biologies Laboratories (EMBL, Heidelberg, Germany)), the *gnd* gene which codes for 6-phosphogluconate dehydrogenase (JP-A-9-224662), the *zwf* gene which codes for glucose 6-phosphate dehydrogenase (JP-A-9-224661), the *thrE* gene which codes for threonine export (DE 199 41 478.5; DSM 12840), the *zwa1* gene (DE 199 59 328.0; DSM 13115), the *eno* gene which codes for enolase (DE: 19947791.4), the *devB* gene, the *opcA* gene (DSM 13264)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	4715	zwf or (g6p or glc6p or glucose-6-phosphate) adj (dh or dehydrogenase\$1) or g6pdh	US-PGPUB; USPAT	ADJ	OFF	2004/11/29 11:19
L2	13	1 same corynebacter\$	US-PGPUB; USPAT	ADJ	OFF	2004/11/29 11:20
L3	15	1 same ((amino adj acid or lysine or threonine or tryptophan or lys or thr or trp) near4 (biosynthes\$ or synthes\$10 or prepar\$10))	US-PGPUB; USPAT	ADJ	OFF	2004/11/29 11:21
L4	24	2 or 3	US-PGPUB; USPAT	ADJ	OFF	2004/11/29 11:21
L5	679	poxb or pyruvate oxidase\$1 or pox adj b	US-PGPUB; USPAT	ADJ	OFF	2004/11/29 12:11
L6	9	5 same corynebacter\$	US-PGPUB; USPAT	ADJ	OFF	2004/11/29 12:12
L7	15	5 same ((amino adj acid or lysine or threonine or tryptophan or lys or thr or trp) near4 (biosynthes\$ or synthes\$10 or prepar\$10))	US-PGPUB; USPAT	ADJ	OFF	2004/11/29 12:13
L8	20	6 or 7	US-PGPUB; USPAT	ADJ	OFF	2004/11/29 12:13

US-PAT-NO: 6759218

DOCUMENT-IDENTIFIER: US 6759218 B2

TITLE: Nucleotide sequences coding for the glbO gene

DATE-ISSUED: July 6, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Mockel; Bettina	Dusseldorf	N/A	N/A	DE
Marx; Achim	Bielefeld	N/A	N/A	DE
Pfefferle; Walter	Halle	N/A	N/A	DE

APPL-NO: 10/ 139520

DATE FILED: May 7, 2002

PARENT-CASE:

RELATED APPLICATIONS

This application is a continuation-in-part of U.S. patent application Ser. No. 09/813,932 filed Mar. 22, 2001, now abandoned, which is a continuation-in-part of U.S. patent application Ser. No. 09/585,642 filed Jun. 2, 2000, now abandoned, which are both incorporated herein, in their entirety, by reference.

US-CL-CURRENT: 435/106, 435/115 , 435/252.32 , 435/320.1

ABSTRACT:

The present invention provides an isolated polynucleotide containing a polynucleotide sequence selected from the group a) polynucleotide which is at least 70% identical to a polynucleotide which codes for a polypeptide containing the amino acid sequence of SEQ ID no. 2, b) polynucleotide which codes for a polypeptide which contains an amino acid sequence which is at least 70% identical to the amino acid sequence of SEQ ID no. 2, c) polynucleotide which is complementary to the polynucleotides of a) or b), and d) polynucleotide containing at least 15 successive nucleotides of the polynucleotide sequence of a), b) or c),

and a process for the fermentative production of L-amino acids with enhancement of the glbO gene which codes for the haemoglobin-like protein and the use of the above polynucleotides as a primer or hybridization probe.

20 Claims, 2 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 2

----- KWIC -----

Claims Text - CLTX (7):

7. The method according to claim 1, wherein the bacteria further include

one or more attenuated corynebacterium gene selected from the group consisting of: the pck gene, which codes for phosphoenolpyruvate carboxykinase, the pgi gene, which codes for glucose 6-phosphate isomerase, and the poxB gene, which codes for pyruvate oxidase.

Claims Text - CLTX (19):

19. The method according to claim 13, wherein the bacteria further include one or more attenuated corynebacterium gene selected from the group consisting of: the pck gene, which codes for phosphoenolpyruvate carboxykinase, the pgi gene, which codes for glucose 6-phosphate isomerase, and the poxB gene, which codes for pyruvate oxidase.

* * * * * STN Columbus * * * * *

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11 FILES IN THE FILE LIST

=> s zwf or (g6p or glc6p or glucose-6-phosphate) (w) (dh or dehydrogenase#) or g6pdh
FILE 'MEDLINE'

	79	ZWF
	439	G6P
	43	GLC6P
	260860	GLUCOSE
	1631027	6
	134055	PHOSPHATE
	14008	GLUCOSE-6-PHOSPHATE (GLUCOSE (W) 6 (W) PHOSPHATE)
	26493	DH
	132193	DEHYDROGENASE#
	8062	(G6P OR GLC6P OR GLUCOSE-6-PHOSPHATE) (W) (DH OR DEHYDROGENASE#)
	537	G6PDH
L1	8211	ZWF OR (G6P OR GLC6P OR GLUCOSE-6-PHOSPHATE) (W) (DH OR DEHYDROGENASE#) OR G6PDH

FILE 'SCISEARCH'

	69	ZWF
	300	G6P
	62	GLC6P
	185508	GLUCOSE
	1438987	6
	141150	PHOSPHATE
	7750	GLUCOSE-6-PHOSPHATE (GLUCOSE (W) 6 (W) PHOSPHATE)
	4110	DH
	81996	DEHYDROGENASE#
	5301	(G6P OR GLC6P OR GLUCOSE-6-PHOSPHATE) (W) (DH OR DEHYDROGENASE#)
	507	G6PDH
L2	5445	ZWF OR (G6P OR GLC6P OR GLUCOSE-6-PHOSPHATE) (W) (DH OR DEHYDROGENASE#) OR G6PDH

FILE 'LIFESCI'

	61	ZWF
	114	G6P
	12	GLC6P
	41870	"GLUCOSE"
	205304	"6"
	38789	"PHOSPHATE"
	2727	GLUCOSE-6-PHOSPHATE ("GLUCOSE" (W) "6" (W) "PHOSPHATE")
	1056	DH
	25980	DEHYDROGENASE#
	1667	(G6P OR GLC6P OR GLUCOSE-6-PHOSPHATE) (W) (DH OR DEHYDROGENASE#)
	196	G6PDH
L3	1736	ZWF OR (G6P OR GLC6P OR GLUCOSE-6-PHOSPHATE) (W) (DH OR DEHYDROGENASE#) OR G6PDH

FILE 'BIOTECHDS'

100 ZWF
 29 G6P
 1 GLC6P
 30435 GLUCOSE
 98074 6
 18051 PHOSPHATE
 662 GLUCOSE-6-PHOSPHATE
 (GLUCOSE(W) 6 (W) PHOSPHATE)
 229 DH
 8048 DEHYDROGENASE#
 442 (G6P OR GLC6P OR GLUCOSE-6-PHOSPHATE) (W) (DH OR DEHYDROGENASE#)
 41 G6PDH
 L4 463 ZWF OR (G6P OR GLC6P OR GLUCOSE-6-PHOSPHATE) (W) (DH OR DEHYDROGENASE#) OR G6PDH

FILE 'BIOSIS'

89 ZWF
 523 G6P
 71 GLC6P
 269463 GLUCOSE
 1531072 6
 196095 PHOSPHATE
 18867 GLUCOSE-6-PHOSPHATE
 (GLUCOSE(W) 6 (W) PHOSPHATE)
 3287 DH
 132611 DEHYDROGENASE#
 13910 (G6P OR GLC6P OR GLUCOSE-6-PHOSPHATE) (W) (DH OR DEHYDROGENASE#)
 790 G6PDH
 L5 14051 ZWF OR (G6P OR GLC6P OR GLUCOSE-6-PHOSPHATE) (W) (DH OR DEHYDROGENASE#) OR G6PDH

FILE 'EMBASE'

71 ZWF
 401 G6P
 38 GLC6P
 216856 "GLUCOSE"
 923330 "6"
 165279 "PHOSPHATE"
 13415 GLUCOSE-6-PHOSPHATE
 ("GLUCOSE" (W) "6" (W) "PHOSPHATE")
 2188 DH
 91988 DEHYDROGENASE#
 9004 (G6P OR GLC6P OR GLUCOSE-6-PHOSPHATE) (W) (DH OR DEHYDROGENASE#)
 484 G6PDH
 L6 9086 ZWF OR (G6P OR GLC6P OR GLUCOSE-6-PHOSPHATE) (W) (DH OR DEHYDROGENASE#) OR G6PDH

FILE 'HCAPLUS'

226 ZWF
 603 G6P
 68 GLC6P
 375257 GLUCOSE
 3493222 6
 511645 PHOSPHATE
 26739 GLUCOSE-6-PHOSPHATE
 (GLUCOSE(W) 6 (W) PHOSPHATE)
 7467 DH
 154920 DEHYDROGENASE#
 16710 (G6P OR GLC6P OR GLUCOSE-6-PHOSPHATE) (W) (DH OR DEHYDROGENASE#)
 849 G6PDH
 L7 16824 ZWF OR (G6P OR GLC6P OR GLUCOSE-6-PHOSPHATE) (W) (DH OR DEHYDROGENASE#) OR G6PDH

FILE 'NTIS'

0 ZWF
0 G6P
0 GLC6P
2866 GLUCOSE
130059 6
6352 PHOSPHATE
156 GLUCOSE-6-PHOSPHATE
(GLUCOSE (W) 6 (W) PHOSPHATE)
364 DH
1077 DEHYDROGENASE#
119 (G6P OR GLC6P OR GLUCOSE-6-PHOSPHATE) (W) (DH OR DEHYDROGENASE#)
2 G6PDH
L8 119 ZWF OR (G6P OR GLC6P OR GLUCOSE-6-PHOSPHATE) (W) (DH OR DEHYDROGENASE#) OR G6PDH

FILE 'ESBIOBASE'

48 ZWF
158 G6P
42 GLC6P
61720 GLUCOSE
458184 6
42025 PHOSPHATE
2585 GLUCOSE-6-PHOSPHATE
(GLUCOSE (W) 6 (W) PHOSPHATE)
1176 DH
26021 DEHYDROGENASE#
1458 (G6P OR GLC6P OR GLUCOSE-6-PHOSPHATE) (W) (DH OR DEHYDROGENASE#)
263 G6PDH
L9 1518 ZWF OR (G6P OR GLC6P OR GLUCOSE-6-PHOSPHATE) (W) (DH OR DEHYDROGENASE#) OR G6PDH

FILE 'BIOTECHNO'

59 ZWF
124 G6P
37 GLC6P
43289 GLUCOSE
285524 6
51707 PHOSPHATE
3288 GLUCOSE-6-PHOSPHATE
(GLUCOSE (W) 6 (W) PHOSPHATE)
849 DH
29338 DEHYDROGENASE#
1800 (G6P OR GLC6P OR GLUCOSE-6-PHOSPHATE) (W) (DH OR DEHYDROGENASE#)
148 G6PDH
L10 1835 ZWF OR (G6P OR GLC6P OR GLUCOSE-6-PHOSPHATE) (W) (DH OR DEHYDROGENASE#) OR G6PDH

FILE 'WPIDS'

95 ZWF
14 G6P
0 GLC6P
31606 GLUCOSE
2749613 6
88856 PHOSPHATE
600 GLUCOSE-6-PHOSPHATE
(GLUCOSE (W) 6 (W) PHOSPHATE)
1126 DH
4929 DEHYDROGENASE#
403 (G6P OR GLC6P OR GLUCOSE-6-PHOSPHATE) (W) (DH OR DEHYDROGENASE#)
47 G6PDH
L11 437 ZWF OR (G6P OR GLC6P OR GLUCOSE-6-PHOSPHATE) (W) (DH OR DEHYDROGENASE#) OR G6PDH

TOTAL FOR ALL FILES

L12 59725 ZWF OR (G6P OR GLC6P OR GLUCOSE-6-PHOSPHATE) (W) (DH OR DEHYDROGEN
ASE#) OR G6PDH

=> s l12 and corynebact?

FILE 'MEDLINE'

9044 CORYNEBACT?

L13 9 L1 AND CORYNEBACT?

FILE 'SCISEARCH'

6070 CORYNEBACT?

L14 13 L2 AND CORYNEBACT?

FILE 'LIFESCI'

3945 CORYNEBACT?

L15 7 L3 AND CORYNEBACT?

FILE 'BIOTECHDS'

2802 CORYNEBACT?

L16 92 L4 AND CORYNEBACT?

FILE 'BIOSIS'

11178 CORYNEBACT?

L17 16 L5 AND CORYNEBACT?

FILE 'EMBASE'

9363 CORYNEBACT?

L18 9 L6 AND CORYNEBACT?

FILE 'HCAPLUS'

11432 CORYNEBACT?

L19 123 L7 AND CORYNEBACT?

FILE 'NTIS'

182 CORYNEBACT?

L20 0 L8 AND CORYNEBACT?

FILE 'ESBIOBASE'

1402 CORYNEBACT?

L21 7 L9 AND CORYNEBACT?

FILE 'BIOTECHNO'

2403 CORYNEBACT?

L22 7 L10 AND CORYNEBACT?

FILE 'WPIDS'

2850 CORYNEBACT?

L23 88 L11 AND CORYNEBACT?

TOTAL FOR ALL FILES

L24 371 L12 AND CORYNEBACT?

=> s (amino acid or lysine or threonine or tryptophan or lys or thr or
trp) (5a) (biosynthes? or synthes? or prepar?)

FILE 'MEDLINE'

572089 AMINO

1295139 ACID

427176 AMINO ACID

(AMINO (W) ACID)

41462 LYSINE

35977 THREONINE

34198 TRYPTOPHAN

16932 LYS

12182 THR

12834 TRP
550668 BIOSYNTHES?
468297 SYNTHES?
437721 PREPAR?
L25 7089 (AMINO ACID OR LYSINE OR THREONINE OR TRYPTOPHAN OR LYS OR THR
OR TRP) (5A) (BIOSYNTHES? OR SYNTHES? OR PREPAR?)

FILE 'SCISEARCH'

354867 AMINO
1017411 ACID
189012 AMINO ACID
(AMINO(W)ACID)
28088 LYSINE
17839 THREONINE
25288 TRYPTOPHAN
14676 LYS
15661 THR
11144 TRP
87366 BIOSYNTHES?
819056 SYNTHES?
528420 PREPAR?
L26 8313 (AMINO ACID OR LYSINE OR THREONINE OR TRYPTOPHAN OR LYS OR THR
OR TRP) (5A) (BIOSYNTHES? OR SYNTHES? OR PREPAR?)

FILE 'LIFESCI'

158145 "AMINO"
279754 "ACID"
109572 AMINO ACID
("AMINO" (W) "ACID")
10283 LYSINE
7853 THREONINE
7755 TRYPTOPHAN
7375 LYS
5290 THR
5177 TRP
52251 BIOSYNTHES?
134890 SYNTHES?
98850 PREPAR?
L27 3036 (AMINO ACID OR LYSINE OR THREONINE OR TRYPTOPHAN OR LYS OR THR
OR TRP) (5A) (BIOSYNTHES? OR SYNTHES? OR PREPAR?)

FILE 'BIOTECHDS'

57685 AMINO
119876 ACID
40951 AMINO ACID
(AMINO(W)ACID)
3698 LYSINE
2044 THREONINE
2474 TRYPTOPHAN
3363 LYS
2795 THR
2500 TRP
9074 BIOSYNTHES?
30235 SYNTHES?
79158 PREPAR?
L28 2143 (AMINO ACID OR LYSINE OR THREONINE OR TRYPTOPHAN OR LYS OR THR
OR TRP) (5A) (BIOSYNTHES? OR SYNTHES? OR PREPAR?)

FILE 'BIOSIS'

495727 AMINO
1176320 ACID
287407 AMINO ACID
(AMINO(W)ACID)
47312 LYSINE

24739 THREONINE
 37957 TRYPTOPHAN
 17400 LYS
 12441 THR
 13152 TRP
 97489 BIOSYNTHES?
 619426 SYNTHES?
 441016 PREPAR?
 L29 11732 (AMINO ACID OR LYSINE OR THREONINE OR TRYPTOPHAN OR LYS OR THR
 OR TRP) (5A) (BIOSYNTHES? OR SYNTHES? OR PREPAR?)

FILE 'EMBASE'

388889 "AMINO"
 1263761 "ACID"
 263899 AMINO ACID
 ("AMINO" (W) "ACID")
 33664 LYSINE
 20516 THREONINE
 28056 TRYPTOPHAN
 14212 LYS
 10623 THR
 9858 TRP
 59691 BIOSYNTHES?
 570465 SYNTHES?
 365248 PREPAR?
 L30 8623 (AMINO ACID OR LYSINE OR THREONINE OR TRYPTOPHAN OR LYS OR THR
 OR TRP) (5A) (BIOSYNTHES? OR SYNTHES? OR PREPAR?)

FILE 'HCAPLUS'

1002690 AMINO
 3905326 ACID
 493975 AMINO ACID
 (AMINO(W)ACID)
 96136 LYSINE
 51579 THREONINE
 68506 TRYPTOPHAN
 26744 LYS
 17584 THR
 19360 TRP
 126117 BIOSYNTHES?
 1409335 SYNTHES?
 1508868 PREPAR?
 113463 PREP
 1899912 PREPD
 104167 PREPG
 2525090 PREPN
 4315445 PREPAR?
 (PREPAR? OR PREP OR PREPD OR PREPG OR PREPN)
 L31 38025 (AMINO ACID OR LYSINE OR THREONINE OR TRYPTOPHAN OR LYS OR THR
 OR TRP) (5A) (BIOSYNTHES? OR SYNTHES? OR PREPAR?)

FILE 'NTIS'

6871 AMINO
 43410 ACID
 2418 AMINO ACID
 (AMINO(W)ACID)
 368 LYSINE
 159 THREONINE
 407 TRYPTOPHAN
 127 LYS
 157 THR
 154 TRP
 3632 BIOSYNTHES?
 41801 SYNTHES?

106559 PREPAR?
L32 196 (AMINO ACID OR LYSINE OR THREONINE OR TRYPTOPHAN OR LYS OR THR
OR TRP) (5A) (BIOSYNTHES? OR SYNTHES? OR PREPAR?)

FILE 'ESBIOBASE'

159772 AMINO
297779 ACID
89619 AMINO ACID
(AMINO(W)ACID)
10249 LYSINE
9497 THREONINE
7583 TRYPTOPHAN
7978 LYS
6644 THR
5706 TRP
28099 BIOSYNTHES?
174013 SYNTHES?
89182 PREPAR?
L33 2685 (AMINO ACID OR LYSINE OR THREONINE OR TRYPTOPHAN OR LYS OR THR
OR TRP) (5A) (BIOSYNTHES? OR SYNTHES? OR PREPAR?)

FILE 'BIOTECHNO'

204625 AMINO
349810 ACID
154660 AMINO ACID
(AMINO(W)ACID)
13846 LYSINE
11609 THREONINE
7974 TRYPTOPHAN
9434 LYS
7178 THR
5672 TRP
29435 BIOSYNTHES?
170699 SYNTHES?
86115 PREPAR?
L34 3495 (AMINO ACID OR LYSINE OR THREONINE OR TRYPTOPHAN OR LYS OR THR
OR TRP) (5A) (BIOSYNTHES? OR SYNTHES? OR PREPAR?)

FILE 'WPIDS'

224281 AMINO
873517 ACID
60444 AMINO ACID
(AMINO(W)ACID)
9329 LYSINE
3858 THREONINE
3463 TRYPTOPHAN
8118 LYS
7591 THR
4762 TRP
4501 BIOSYNTHES?
119944 SYNTHES?
716624 PREPAR?
343604 PREPD
9351 PREPG
289255 PREPN
964622 PREPAR?
(PREPAR? OR PREPD OR PREPG OR PREPN)
L35 4372 (AMINO ACID OR LYSINE OR THREONINE OR TRYPTOPHAN OR LYS OR THR
OR TRP) (5A) (BIOSYNTHES? OR SYNTHES? OR PREPAR?)

TOTAL FOR ALL FILES

L36 89709 (AMINO ACID OR LYSINE OR THREONINE OR TRYPTOPHAN OR LYS OR THR
OR TRP) (5A) (BIOSYNTHES? OR SYNTHES? OR PREPAR?)

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=> s 112 and 136
FILE 'MEDLINE'
L37          9 L1 AND L25

FILE 'SCISEARCH'
L38          10 L2 AND L26

FILE 'LIFESCI'
L39          4 L3 AND L27

FILE 'BIOTECHDS'
L40          62 L4 AND L28

FILE 'BIOSIS'
L41          19 L5 AND L29

FILE 'EMBASE'
L42          11 L6 AND L30

FILE 'HCAPLUS'
L43          132 L7 AND L31

FILE 'NTIS'
L44          0 L8 AND L32

FILE 'ESBIOBASE'
L45          4 L9 AND L33

FILE 'BIOTECHNO'
L46          8 L10 AND L34

FILE 'WPIDS'
L47          54 L11 AND L35

TOTAL FOR ALL FILES
L48          313 L12 AND L36

=> s (l24 or l48) not 2001-2004/py
FILE 'MEDLINE'
      2127982 2001-2004/PY
L49          10 (L13 OR L37) NOT 2001-2004/PY

FILE 'SCISEARCH'
      3909362 2001-2004/PY
L50          7 (L14 OR L38) NOT 2001-2004/PY

FILE 'LIFESCI'
      388743 2001-2004/PY
L51          4 (L15 OR L39) NOT 2001-2004/PY

FILE 'BIOTECHDS'
      85018 2001-2004/PY
L52          0 (L16 OR L40) NOT 2001-2004/PY

FILE 'BIOSIS'
      1980190 2001-2004/PY
L53          27 (L17 OR L41) NOT 2001-2004/PY

FILE 'EMBASE'
      1820743 2001-2004/PY
L54          12 (L18 OR L42) NOT 2001-2004/PY

FILE 'HCAPLUS'

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      4004063 2001-2004/PY
L55      41 (L19 OR L43) NOT 2001-2004/PY

FILE 'NTIS'
      56296 2001-2004/PY
L56      0 (L20 OR L44) NOT 2001-2004/PY

FILE 'ESBIOBASE'
      1122519 2001-2004/PY
L57      4 (L21 OR L45) NOT 2001-2004/PY

FILE 'BIOTECHNO'
      368875 2001-2004/PY
L58      6 (L22 OR L46) NOT 2001-2004/PY

FILE 'WPIDS'
      3688209 2001-2004/PY
L59      0 (L23 OR L47) NOT 2001-2004/PY

TOTAL FOR ALL FILES
L60      111 (L24 OR L48) NOT 2001-2004/PY

=> s poxb or pox(w)b or pyruvate oxidase#
FILE 'MEDLINE'
      20 POXB
      1701 POX
      595025 B
      1 POX(W)B
      24840 PYRUVATE
      67019 OXIDASE#
      270 PYRUVATE OXIDASE#
          (PYRUVATE(W)OXIDASE#)
L61      274 POXB OR POX(W)B OR PYRUVATE OXIDASE#

FILE 'SCISEARCH'
      21 POXB
      1669 POX
      1200094 B
      1 POX(W)B
      19922 PYRUVATE
      64421 OXIDASE#
      242 PYRUVATE OXIDASE#
          (PYRUVATE(W)OXIDASE#)
L62      251 POXB OR POX(W)B OR PYRUVATE OXIDASE#

FILE 'LIFESCI'
      15 POXB
      773 POX
      198289 B
      1 POX(W)B
      6179 "PYRUVATE"
      16936 OXIDASE#
      83 PYRUVATE OXIDASE#
          ("PYRUVATE" (W)OXIDASE#)
L63      89 POXB OR POX(W)B OR PYRUVATE OXIDASE#

FILE 'BIOTECHDS'
      129 POXB
      1361 POX
      54366 B
      1 POX(W)B
      2035 PYRUVATE
      6288 OXIDASE#
      212 PYRUVATE OXIDASE#

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(PYRUVATE(W) OXIDASE#)
L64 225 POXB OR POX(W) B OR PYRUVATE OXIDASE#

FILE 'BIOSIS'

21 POXB
3583 POX
696181 B
10 POX(W) B
36270 PYRUVATE
84285 OXIDASE#
278 PYRUVATE OXIDASE#
(PYRUVATE(W) OXIDASE#)

L65 289 POXB OR POX(W) B OR PYRUVATE OXIDASE#

FILE 'EMBASE'

18 POXB
1024 POX
666256 B
2 POX(W) B
20351 "PYRUVATE"
59166 OXIDASE#
180 PYRUVATE OXIDASE#
("PYRUVATE"(W) OXIDASE#)

L66 187 POXB OR POX(W) B OR PYRUVATE OXIDASE#

FILE 'HCAPLUS'

223 POXB
1853 POX
1469610 B
2 POX(W) B
48725 PYRUVATE
112366 OXIDASE#
825 PYRUVATE OXIDASE#
(PYRUVATE(W) OXIDASE#)

L67 856 POXB OR POX(W) B OR PYRUVATE OXIDASE#

FILE 'NTIS'

0 POXB
120 POX
66778 B
0 POX(W) B
306 PYRUVATE
732 OXIDASE#
1 PYRUVATE OXIDASE#
(PYRUVATE(W) OXIDASE#)

L68 1 POXB OR POX(W) B OR PYRUVATE OXIDASE#

FILE 'ESBIOBASE'

13 POXB
488 POX
311076 B
1 POX(W) B
6383 PYRUVATE
18935 OXIDASE#
64 PYRUVATE OXIDASE#
(PYRUVATE(W) OXIDASE#)

L69 70 POXB OR POX(W) B OR PYRUVATE OXIDASE#

FILE 'BIOTECHNO'

14 POXB
378 POX
228519 B
0 POX(W) B
6527 PYRUVATE

16788 OXIDASE#
107 PYRUVATE OXIDASE#
(PYRUVATE(W) OXIDASE#)
L70 112 POXB OR POX(W) B OR PYRUVATE OXIDASE#

FILE 'WPIDS'
149 POXB
772 POX
1161443 B
2 POX(W) B
1937 PYRUVATE
6461 OXIDASE#
211 PYRUVATE OXIDASE#
(PYRUVATE(W) OXIDASE#)
L71 225 POXB OR POX(W) B OR PYRUVATE OXIDASE#

TOTAL FOR ALL FILES
L72 2579 POXB OR POX(W) B OR PYRUVATE OXIDASE#

=> s l72 and corynebact?

FILE 'MEDLINE'
9044 CORYNEBACT?
L73 1 L61 AND CORYNEBACT?

FILE 'SCISEARCH'
6070 CORYNEBACT?
L74 1 L62 AND CORYNEBACT?

FILE 'LIFESCI'
3945 CORYNEBACT?
L75 1 L63 AND CORYNEBACT?

FILE 'BIOTECHDS'
2802 CORYNEBACT?
L76 100 L64 AND CORYNEBACT?

FILE 'BIOSIS'
11178 CORYNEBACT?
L77 1 L65 AND CORYNEBACT?

FILE 'EMBASE'
9363 CORYNEBACT?
L78 2 L66 AND CORYNEBACT?

FILE 'HCAPLUS'
11432 CORYNEBACT?
L79 125 L67 AND CORYNEBACT?

FILE 'NTIS'
182 CORYNEBACT?
L80 0 L68 AND CORYNEBACT?

FILE 'ESBIOBASE'
1402 CORYNEBACT?
L81 1 L69 AND CORYNEBACT?

FILE 'BIOTECHNO'
2403 CORYNEBACT?
L82 1 L70 AND CORYNEBACT?

FILE 'WPIDS'
2850 CORYNEBACT?
L83 103 L71 AND CORYNEBACT?

TOTAL FOR ALL FILES
L84 336 L72 AND CORYNEBACT?

=> s l72 and l36
FILE 'MEDLINE'
L85 1 L61 AND L25

FILE 'SCISEARCH'
L86 2 L62 AND L26

FILE 'LIFESCI'
L87 0 L63 AND L27

FILE 'BIOTECHDS'
L88 88 L64 AND L28

FILE 'BIOSIS'
L89 2 L65 AND L29

FILE 'EMBASE'
L90 2 L66 AND L30

FILE 'HCAPLUS'
L91 164 L67 AND L31

FILE 'NTIS'
L92 0 L68 AND L32

FILE 'ESBIOBASE'
L93 1 L69 AND L33

FILE 'BIOTECHNO'
L94 1 L70 AND L34

FILE 'WPIDS'
L95 89 L71 AND L35

TOTAL FOR ALL FILES
L96 350 L72 AND L36

=> s (l84 or l96) not 2001-2004/py
FILE 'MEDLINE'
2127982 2001-2004/PY
L97 0 (L73 OR L85) NOT 2001-2004/PY

FILE 'SCISEARCH'
3909362 2001-2004/PY
L98 1 (L74 OR L86) NOT 2001-2004/PY

FILE 'LIFESCI'
388743 2001-2004/PY
L99 0 (L75 OR L87) NOT 2001-2004/PY

FILE 'BIOTECHDS'
85018 2001-2004/PY
L100 1 (L76 OR L88) NOT 2001-2004/PY

FILE 'BIOSIS'
1980190 2001-2004/PY
L101 1 (L77 OR L89) NOT 2001-2004/PY

FILE 'EMBASE'
1820743 2001-2004/PY
L102 0 (L78 OR L90) NOT 2001-2004/PY

FILE 'HCAPLUS'
 4004063 2001-2004/PY
 L103 1 (L79 OR L91) NOT 2001-2004/PY

 FILE 'NTIS'
 56296 2001-2004/PY
 L104 0 (L80 OR L92) NOT 2001-2004/PY

 FILE 'ESBIOBASE'
 1122519 2001-2004/PY
 L105 0 (L81 OR L93) NOT 2001-2004/PY

 FILE 'BIOTECHNO'
 368875 2001-2004/PY
 L106 0 (L82 OR L94) NOT 2001-2004/PY

 FILE 'WPIDS'
 3688209 2001-2004/PY
 L107 0 (L83 OR L95) NOT 2001-2004/PY

 TOTAL FOR ALL FILES
 L108 4 (L84 OR L96) NOT 2001-2004/PY

 => s (l24 or l48) and 2001-2002/py
 FILE 'MEDLINE'
 1054245 2001-2002/PY
 L109 2 (L13 OR L37) AND 2001-2002/PY

 FILE 'SCISEARCH'
 2010776 2001-2002/PY
 L110 4 (L14 OR L38) AND 2001-2002/PY

 FILE 'LIFESCI'
 226951 2001-2002/PY
 L111 2 (L15 OR L39) AND 2001-2002/PY

 FILE 'BIOTECHDS'
 42478 2001-2002/PY
 L112 74 (L16 OR L40) AND 2001-2002/PY

 FILE 'BIOSIS'
 1133016 2001-2002/PY
 L113 1 (L17 OR L41) AND 2001-2002/PY

 FILE 'EMBASE'
 912406 2001-2002/PY
 L114 2 (L18 OR L42) AND 2001-2002/PY

 FILE 'HCAPLUS'
 2128985 2001-2002/PY
 L115 94 (L19 OR L43) AND 2001-2002/PY

 FILE 'NTIS'
 37576 2001-2002/PY
 L116 0 (L20 OR L44) AND 2001-2002/PY

 FILE 'ESBIOBASE'
 581159 2001-2002/PY
 L117 2 (L21 OR L45) AND 2001-2002/PY

 FILE 'BIOTECHNO'
 246497 2001-2002/PY
 L118 4 (L22 OR L46) AND 2001-2002/PY

FILE 'WPIDS'

2083142 2001-2002/PY

L119 76 (L23 OR L47) AND 2001-2002/PY

TOTAL FOR ALL FILES

L120 261 (L24 OR L48) AND 2001-2002/PY

=> dup rem l120

PROCESSING COMPLETED FOR L120

L121 111 DUP REM L120 (150 DUPLICATES REMOVED)

=> d tot

L121 ANSWER 1 OF 111 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Sequences of **Corynebacterium** glutamicum rpoB gene and use for making L-amino acids

SO U.S. Pat. Appl. Publ., 37 pp., Cont.-in-part of U.S. Ser. No. 887,052.
CODEN: USXXCO

IN Moeckel, Bettina; Bathe, Brigitte; Hermann, Thomas; Pfefferle, Walter; Binder, Michael

AN 2003:696577 HCAPLUS

DN 139:208876

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003166884	A1	20030904	US 2002-76406	20020219
	US 2002119537	A1	20020829	US 2001-887052	20010625 <--
	US 6783967	B2	20040831		
	US 2004180359	A1	20040916	US 2003-706082	20031113

L121 ANSWER 2 OF 111 HCAPLUS COPYRIGHT 2004 ACS on STN

TI **Corynebacterium** glutamicum genes opcA and **zwf** and uses in fermentative preparation of L-amino acids

SO U.S. Pat. Appl. Publ., 22 pp., Cont.-in-part of U.S. Ser. No. 531,267, abandoned.
CODEN: USXXCO

IN Dunican, L. K.; Dunican, Rita; McCormack, Ashling; Stapleton, Cliona; Burke, Kevin; Moritz, Bernd S.; Eggeling, Lothar; Sahm, Hermann; Mockel, Bettina; Weissenborn, Anke

AN 2003:570554 HCAPLUS

DN 139:112782

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003138917	A1	20030724	US 2002-137655	20020503
	ZA 2001001703	A	20020528	ZA 2001-1703	20010228 <--
	ZA 2001001678	A	20020815	ZA 2001-1678	20010228 <--

L121 ANSWER 3 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN

TI Industrially useful microorganisms with inactivation or deletion of genes participating in metabolism of specific saccharides, applicable in industrial production of e.g. proteins, nucleic acids, vitamins and lipids;

gene disrupted bacterium culture useful for protein, DNA, RNA, vitamin, lipid, amino acid and saccharide production

AU MORI H; FUJIO T; NISHIHARA M

AN 2003-10758 BIOTECHDS

PI WO 2002101027 19 Dec 2002

L121 ANSWER 4 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN

TI New nucleic acid encoding citrate-lyase E from coryneform bacteria, useful, when suppressed, for increasing fermentative production of amino acids;

vector expression in host cell for production of recombinant protein for amino acid production

AU FARWICK M; HUTHMACHER K; MARX A; BATHE B; PFEFFERLE W
AN 2003-03178 BIOTECHDS
PI WO 2002059329 1 Aug 2002

L121 ANSWER 5 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Isolated polynucleotide from Coryneform bacteria, used for the fermentative production of L-amino acids, comprises a sequence coding for the mikel7 gene;

bacterium strain improvement and fermentation for foodstuff and pharmaceutical production

AU FARWICK M; HUTHMACHER K; PFEFFERLE W
AN 2002-12996 BIOTECHDS
PI WO 2002027009 4 Apr 2002

L121 ANSWER 6 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New polynucleotide from coryneform bacteria coding for dep67 gene, where overexpression of the gene provides improved production of L-amino acids particularly L-lysine in **Corynebacterium** glutamicum;

plasmid vector-mediated recombinant protein gene transfer and expression in Escherichia coli, DNA primer, polymerase chain reaction, DNA microarray, DNA chip, DNA probe and fermentation for use in L-amino acid and L-lysine preparation

AU FARWICK M; HUTHMACHER K; HERMANN T; BATHE B; PFEFFERLE W
AN 2002-13587 BIOTECHDS
PI WO 2002027000 4 Apr 2002

L121 ANSWER 7 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Polynucleotides from Coryneform bacteria, coding for the enzymatic cobalt reducing gene product cobW, involved in the biosynthesis of L-amino acids (e.g. L-lysine);

plasmid pCR2.1cobWint-mediated **Corynebacterium** glutamicum protein gene transfer and expression in bacterium for enzyme expression reduction and enhancement for amino acid production

AU FARWICK M; HUTHMACHER K; SCHISCHKA N; PFEFFERLE W
AN 2002-13335 BIOTECHDS
PI WO 2002026992 4 Apr 2002

L121 ANSWER 8 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Isolated polynucleotide from Coryneform bacteria, used for the fermentative production of L-amino acids, comprises a sequence coding for the msik gene;

recombinant protein gene, vector expression in host cell, culture medium fermentation and enzyme gene useful for foodstuff and human medicine

AU BATHE B; SCHISCHKA N; FARWICK M; PFEFFERLE W
AN 2002-12995 BIOTECHDS
PI WO 2002026989 4 Apr 2002

L121 ANSWER 9 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New dead gene encoding polypeptide having activity of DNA/RNA helicase, useful in bacteria for the fermentative preparation of L-amino acids, particularly L-lysine, from glucose, molasses, starch, cellulose or ethanol;

vector-mediated gene transfer and expression in Escherichia coli, glucose, sucrose, lactose, fructose, molasses, starch, cellulose, glycerol and ethanol fermentation and DNA microarray for use in L-lysine and L-amino-acid preparation

AU FARWICK M; HUTHMACHER K; BREHME J; PFEFFERLE W
AN 2002-13342 BIOTECHDS
PI WO 2002026787 4 Apr 2002

L121 ANSWER 10 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN

TI New truB gene encoding polypeptide having activity of tRNA pseudouridine
 55 synthase, useful in bacteria for fermentative preparation of L-amino
 acids, particularly L-lysine, from glucose, molasses, starch or ethanol;
 vector-mediated gene transfer and expression in Escherichia coli,
 glucose, sucrose, lactose, fructose, molasses, starch, cellulose,
 glycerol and ethanol fermentation, DNA microarray and DNA chip for use
 in **L-lysine** and **L-amino-acid**
preparation
 AU FARWICK M; HUTHMACHER K; PFEFFERLE W; BATHE B
 AN 2002-13341 BIOTECHDS
 PI WO 2002026786 **4 Apr 2002**

L121 ANSWER 11 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
 TI Novel polynucleotide from Coryneform bacteria coding for PPGK gene,
 useful as hybridization probe for detecting DNA to isolate nucleic acids,
 polynucleotides or genes coding for transcription activator ppgK;
 recombinant **Corynebacterium** glutamicum production useful for
 L-amino acid production, especially L-lysine production
 AU BATHE B; MARTENS M; HERMANN T
 AN 2002-15776 BIOTECHDS
 PI WO 2002026755 **4 Apr 2002**

L121 ANSWER 12 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
 TI New isolated deformylase polypeptide encoding polynucleotide from
 coryneform bacteria which when present in attenuated form in L-lysine
 producing bacteria, results in increased fermentative production of
 L-lysine;
 recombinant enzyme gene, vector expression in host cell, fermentation
 for L-amino acid production
 AU FARWICK M; HUTHMACHER K; BREHME J; PFEFFERLE W
 AN 2002-13374 BIOTECHDS
 PI WO 2002024922 **28 Mar 2002**

L121 ANSWER 13 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
 TI Novel polynucleotide from Coryneform bacteria coding for thyA gene,
 useful as hybridization probe for detecting DNA to isolate nucleic acids,
 polynucleotides or genes coding for thymidilate synthase;
 recombinant protein gene, vector expression in host cell, enzyme gene
 for L-amino acid production
 AU MARX A; SCHISCHKA N; BATHE B; FARWICK M
 AN 2002-13339 BIOTECHDS
 PI WO 2002024919 **28 Mar 2002**

L121 ANSWER 14 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
 TI New polynucleotide from Coryneform bacteria coding for C4-dicarboxylate
 transporter, useful for isolating nucleic acids, polynucleotides or genes
 which code for C4-dicarboxylate transporter gene;
 recombinant protein, vector expression in host cell, enzyme gene
 enhancement for L-amino acid production
 AU FARWICK M; HUTHMACHER K; BATHE B; HERMANN T; PFEFFERLE W
 AN 2002-13338 BIOTECHDS
 PI WO 2002024915 **28 Mar 2002**

L121 ANSWER 15 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
 TI Polynucleotide sequence encoding ndkA gene useful for preparation of
 L-amino acids e.g. L-lysine, and as hybridization probes for discovering
 RNA, cDNA and DNA to isolate genes encoding nucleotide diphosphate
 kinase;
 plasmid vector-mediated dihydrodipicolinate-synthase gene transfer and
 expression in Escherichia coli and DNA microarray and DNA chip for use
 in **L-lysine** and **L-amino-acid**
preparation
 AU BATHE B; BASTUCK C; MARX A; HERMANN T
 AN 2002-13337 BIOTECHDS

PI WO 2002024880 28 Mar 2002

L121 ANSWER 16 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New ppsA gene of Coryneform bacteria, useful when overexpressed, for increasing fermentative production of L-amino acids, encodes a phosphoenol pyruvate synthase;
vector-mediated pyruvate-water-dikinase gene transfer and expression in Coryneform glutamicum for enzyme activity enhancement for L-lysine production

AU MOECKEL B; MARX A; BASTUCK C; BUCHHOLZ M; PFEFFERLE W
AN 2002-12968 BIOTECHDS
PI WO 2002022829 21 Mar 2002

L121 ANSWER 17 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New protein kinase B, pknB gene from **corynebacteria**, useful as hybridization probe and overexpression of which gene in **corynebacteria** is useful for producing L-amino acids, in particular L-lysine;

Corynebacterium sp. protein-kinase gene for use as a DNA probe or in production of L-lysine
AU BATHE B; HANS S; FARWICK M; HERMANN T
AN 2002-13028 BIOTECHDS
PI WO 2002022828 21 Mar 2002

L121 ANSWER 18 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Novel polynucleotide from coryneform bacteria coding for phosphotransferase system enzyme I, useful for isolating nucleic acids, polynucleotides or genes which code for phosphotransferase system enzyme I;

bacterium strain improvement useful for L-amino acid, especially L-lysine, production
AU MOECKEL B; HANS S; SCHISCHKA N; PFEFFERLE W
AN 2002-13248 BIOTECHDS
PI WO 2002022827 21 Mar 2002

L121 ANSWER 19 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New atr43 gene of coryneform bacteria, useful when suppressed for increasing fermentative production of L-amino acids, encodes an ABC transporter protein;

vector expression in host cell for recombinant protein, fermentation, mutagenesis useful for L-lysine, medicine, food, DNA array and biochip
AU FARWICK M; HUTHMACHER K; PFEFFERLE W
AN 2002-12574 BIOTECHDS
PI WO 2002022814 21 Mar 2002

L121 ANSWER 20 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New ccsB gene of coryneform bacteria, useful when overexpressed for increasing fermentative production of L-amino acids, encodes a cytochrome c synthesis protein;

vector-mediated gene transfer and expression in host cell for strain improvement and L-amino acid preparation
AU FARWICK M; HUTHMACHER K; PFEFFERLE W; BATHE B; HERMANN T
AN 2002-12659 BIOTECHDS
PI WO 2002022672 21 Mar 2002

L121 ANSWER 21 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New pstC2 gene of coryneform bacteria, useful when suppressed for increasing fermentative production of L-amino acids, encodes a membrane-bound phosphate transporter protein;

vector-mediated gene transfer and expression in host cell for strain improvement and L-amino acid preparation
AU FARWICK M; HUTHMACHER K; PFEFFERLE W; BREHME J
AN 2002-12658 BIOTECHDS
PI WO 2002022671 21 Mar 2002

L121 ANSWER 22 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
 TI New sugA gene of coryneform bacteria, useful when suppressed for increasing fermentative production of L-amino acids, encodes a sugar transporter protein;
 vector-mediated gene transfer and expression in host cell for strain improvement and **L-amino acid preparation**
 AU FARWICK M; HUTHMACHER K; PFEFFERLE W; HERMANN T; MARX A
 AN 2002-12657 BIOTECHDS
 PI WO 2002022669 **21 Mar 2002**

L121 ANSWER 23 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
 TI New gorA gene of coryneform bacteria, useful when suppressed for increasing fermentative production of L-amino acids, encodes a glutathione reductase;
 vector-mediated gene transfer and expression in host cell for strain improvement and **L-amino acid preparation**
 AU FARWICK M; HUTHMACHER K; PFEFFERLE W; MARX A
 AN 2002-12656 BIOTECHDS
 PI WO 2002022666 **21 Mar 2002**

L121 ANSWER 24 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
 TI New Atr61 gene of Coryneform bacteria, useful when overexpressed, for increasing fermentative production of L-amino acids, encodes an ABC transporter protein;
 vector-mediated gene transfer and expression in host cell for strain improvement and **L-lysine preparation**
 AU FARWICK M; HUTHMACHER K; PFEFFERLE W
 AN 2002-13089 BIOTECHDS
 PI WO 2002022633 **21 Mar 2002**

L121 ANSWER 25 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
 TI New pknD gene of Coryneform bacteria, useful when overexpressed, for increasing fermentative production of L-amino acids, encodes a protein kinase D protein;
 plasmid pK18mobsac-pknD-XuctionL-mediated enzyme gene transfer and expression in Escherichia coli and **Corynebacterium glutamicum** for L-lysine production
 AU BATHE B; SCHROEDER I; FARWICK M; HERMANN T
 AN 2002-13334 BIOTECHDS
 PI WO 2002022632 **21 Mar 2002**

L121 ANSWER 26 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
 TI Novel sahH gene from coryneform bacteria useful as probe to isolate genes coding for adenosyl homocysteinase, and overexpression of which gene in coryneform bacteria is useful for producing amino acids, e.g. L-lysine;
 plasmid-mediated enzyme gene transfer and expression in **Corynebacterium glutamicum** for L-methionine production
 AU FARWICK M; HUTHMACHER K; BREHME J; PFEFFERLE W; BINDER M; GREISSINGER D; THIERBACH G
 AN 2002-16222 BIOTECHDS
 PI WO 2002020806 **14 Mar 2002**

L121 ANSWER 27 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
 TI New polynucleotides isolated from coryneform bacteria coding for the luxS gene and a process for the fermentative preparation of amino acids using bacteria in which the luxS gene are attenuated;
 vector plasmid pCR2-mediated chrA gene transfer and expression in Escherichia coli, fermentation, DNA primer, DNA probe, DNA chip and DNA microarray for use in **L-lysine** and **L-amino-acid preparation**, medicine and pharmaceutical industries and as feedstuff and food-additive
 AU BATHE B; KREUTZER C; MARX A; PFEFFERLE W
 AN 2002-11963 BIOTECHDS

PI WO 2002020799 **14 Mar 2002**

L121 ANSWER 28 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New polynucleotides isolated from coryneform bacteria coding for the chrA gene and a process for the fermentative preparation of amino acids using bacteria in which the chrA gene are attenuated;
vector plasmid pCR2-mediated chrA gene transfer and expression in Escherichia coli, fermentation, DNA primer, DNA probe, DNA chip and DNA microarray for use in **L-lysine** and **L-amino-acid preparation**, medicine and pharmaceutical industries and as feedstuff and food-additive
AU BATHE B; SCHISCHKA N; MARX A; PFEFFERLE W
AN 2002-12963 BIOTECHDS
PI WO 2002020793 **14 Mar 2002**

L121 ANSWER 29 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New polynucleotides isolated from coryneform bacteria coding for the dep33 gene and a process for the fermentative preparation of amino acids using bacteria in which the dep33 gene are attenuated;
gene overexpression in bacterium, useful for improved amino acid production
AU FARWICK M; HUTHMACHER K; PFEFFERLE W; HERMANN T; BATHE B
AN 2002-11966 BIOTECHDS
PI WO 2002020792 **14 Mar 2002**

L121 ANSWER 30 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Novel polynucleotide from Coryneform bacteria coding for hisC2 gene, useful as hybridization probe for detecting DNA to isolate nucleic acids, polynucleotides or genes coding for transcription regulator hisC2;
vector-mediated gene transfer, expression in host cell and DNA probe for strain improvement, **L-amino acid preparation**, DNA microarray or DNA chip construction and RNA, cDNA or DNA detection
AU FARWICK M; HUTHMACHER K; BATHE B; PFEFFERLE W
AN 2002-13086 BIOTECHDS
PI WO 2002020771 **14 Mar 2002**

L121 ANSWER 31 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New polynucleotides isolated from coryneform bacteria coding for the clpC gene and a process for the fermentative preparation of amino acids using bacteria in which the clpC gene is attenuated;
vector-mediated gene transfer and expression in **Corynebacterium glutamicum** host cell for strain improvement and **L-amino acid preparation**
AU FARWICK M; HUTHMACHER K; BATHE B; RIEPING M; PFEFFERLE W
AN 2002-11965 BIOTECHDS
PI WO 2002020574 **14 Mar 2002**

L121 ANSWER 32 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New polynucleotides isolated from coryneform bacteria coding for the gpmB gene and a process for the fermentative preparation of amino acids using bacteria in which the gpmB gene is enhanced;
vector-mediated gene transfer and expression in **Corynebacterium glutamicum** host cell for strain improvement and **L-amino acid preparation**
AU BATHE B; SCHROEDER I; PFEFFERLE W
AN 2002-11964 BIOTECHDS
PI WO 2002020573 **14 Mar 2002**

L121 ANSWER 33 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New polynucleotides isolated from coryneform bacteria coding for the chrS gene and a process for the fermentative preparation of amino acids using bacteria in which the chrS gene are attenuated;
enhancing histidine-kinase activity in **Corynebacterium**

glutamicum useful for amino acid production by fermentation

AU BATHE B; SCHISCHKA N; MARX A; PFEFFERLE W
AN 2002-11962 BIOTECHDS
PI WO 2002020572 14 Mar 2002

L121 ANSWER 34 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New polynucleotide isolated from coryneform bacteria coding for the gap2 gene and a process for the fermentative preparation of amino acids using bacteria in which the gap2 gene is enhanced;
enhancing glyceraldehyde-3-phosphate-dehydrogenase activity in **Corynebacterium** glutamicum for L-amino acid production by fermentation

AU BATHE B; HANS S; PFEFFERLE W
AN 2002-11961 BIOTECHDS
PI WO 2002020542 14 Mar 2002

L121 ANSWER 35 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New sigM gene from coryneform bacteria useful as probe to isolate genes which code for sigma factor M, and overexpression of which gene in coryneform bacteria is useful for producing amino acids, especially L-lysine;
L-amino acid production by **Corynebacterium** glutamicum fermentation

AU BATHE B; BASTUCK C; FARWICK M; HERMANN T; PFEFFERLE W
AN 2002-12572 BIOTECHDS
PI WO 2002018599 7 Mar 2002

L121 ANSWER 36 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New sigH gene from coryneform bacteria useful as a probe to isolate genes which code for sigma factor H, and overexpression of which gene in coryneform bacteria is useful for producing amino acids, especially L-lysine;
L-amino acid production by **Corynebacterium** glutamicum fermentation

AU BATHE B; SCHROEDER I; RIEPING M; MARX A; FARWICK M; PFEFFERLE W; HERMANN T
AN 2002-12571 BIOTECHDS
PI WO 2002018598 7 Mar 2002

L121 ANSWER 37 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New citB gene from coryneform bacteria useful as a probe to isolate genes which code for the CitB protein, and attenuation of which gene in coryneform bacteria is useful for producing amino acids, in particular L-lysine;
L-amino acid production by fermentation of bacterium expressing the transcription regulator citB protein

AU MOECKEL B; HERMANN T; FARWICK M; PFEFFERLE W; MARX A
AN 2002-12570 BIOTECHDS
PI WO 2002018596 7 Mar 2002

L121 ANSWER 38 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New polynucleotide sequence encoding the sigC gene useful for preparation of L-amino acids e.g. lysine, and as hybridization probes for discovering RNA, cDNA and DNA to isolate genes which code for sigma factor C;
L-amino acid production by fermentation of bacterium containing the sigma factor-C gene

AU BATHE B; HANS S; FARWICK M; HERMANN T; PFEFFERLE W
AN 2002-12653 BIOTECHDS
PI WO 2002018589 7 Mar 2002

L121 ANSWER 39 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Novel polynucleotide from Coryneform bacteria coding for sigma factor E gene, useful as hybridization probe for isolating nucleic acids, polynucleotides or genes which code for sigE;

**Corynebacterium glutamicum strain improvement for increased
L-amino acid production by fermentation**

AU MOECKEL B; HERMANN T; FARWICK M; BINDER M; PFEFFERLE W
AN 2002-12993 BIOTECHDS
PI WO 2002018428 **7 Mar 2002**

L121 ANSWER 40 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Novel isolated citA encoding polynucleotide from coryneform bacteria,
useful as a probe, and which, when present in attenuated form in L-lysine
producing bacteria, results in increased fermentative production of
L-lysine;
vector-mediated gene transfer and expression in host cell for strain
improvement and **L-amino acid preparation**

AU MOECKEL B; FARWICK M; HERMANN T; MARX A; PFEFFERLE W
AN 2002-12966 BIOTECHDS
PI WO 2002018427 **7 Mar 2002**

L121 ANSWER 41 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Novel polynucleotide from Coryneform bacteria coding for lysR3 gene,
useful as a probe for detecting DNA to isolate nucleic acids coding for
transcription regulator lysR3 or for producing L-amino acids, e.g.,
L-lysine and L-valine;
bacterium recombinant protein gene, vector expression in host cell,
for L-valine and L-lysine production

AU MOECKEL B; KREUTZER C
AN 2002-11054 BIOTECHDS
PI WO 2002012505 **14 Feb 2002**

L121 ANSWER 42 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Novel lysR2 gene of coryneform bacteria encoding LysR2 protein which is a
transcription regulator, useful for fermentative production of L-lysine
and L-valine and as a probe detecting polynucleotides encoding LysR2;
bacterium recombinant protein production vector expression in host
cell, for L-amino acid, L-lysine, L-valine production

AU MOECKEL B; FARWICK M; HERMANN T; KREUTZER C; PFEFFERLE W
AN 2002-11053 BIOTECHDS
PI WO 2002012504 **14 Feb 2002**

L121 ANSWER 43 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Novel polynucleotide from Coryneform bacteria coding for lysR1 gene,
useful as hybridization probe for detecting DNA coding for transcription
regulator lysR1;

vector plasmid pCR2.1lysR1int-mediated gene transfer and expression in
Escherichia coli and polymerase chain reaction for use in L-
**lysine and L-amino-acid
preparation**

AU MOECKEL B; FARWICK M; HERMANN T; KREUTZER C; PFEFFERLE W
AN 2002-11052 BIOTECHDS
PI WO 2002012295 **14 Feb 2002**

L121 ANSWER 44 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Novel polynucleotide from Coryneform bacteria coding for luxR gene,
useful as hybridization probe for detecting DNA to isolate nucleic acids,
polynucleotides or genes coding for transcription activator luxR;
recombinant protein production, vector expression in bacterium,
culture medium fermentation and transcription activator useful for
L-valine and L-lysine

AU MOECKEL B; KREUTZER C; BATHE B
AN 2002-11051 BIOTECHDS
PI WO 2002012291 **14 Feb 2002**

L121 ANSWER 45 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New coryneform bacterium in which the mdhA gene is attenuated, preferably
eliminated, useful for fermentative production of L-amino acids such as

L-lysine;
malate-dehydrogenase gene transfer in **Corynebacterium**
glutamicum, DNA array, DNA microarray and DNA chip useful for
medicine, pharmaceutical, food industry and feedstuff

AU MOLENAAR D; VAN DER REST M E; DRYSCH A
AN 2002-08500 BIOTECHDS
PI WO 2002002778 **10 Jan 2002**

L121 ANSWER 46 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New coryneform bacteria gene for subunit beta of RNA polymerase B, useful
when overexpressed for increasing fermentative production of amino acids,
also its mutants;
vector-mediated recombinant protein gene transfer and expression in
host cell for use in food and as a food-additive

AU MOECKEL B; BATHE B; HERMANN T; PFEFFERLE W; BINDER M
AN 2003-06013 BIOTECHDS
PI EP 1239040 **11 Sep 2002**

L121 ANSWER 47 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Novel Coryneform bacteria polynucleotide sequence of ilvE gene which
codes for transaminase E, the expression of which is enhanced,
particularly over expressed, for fermentative preparation of L-leucine,
L-valine;
recombinant transaminase-E production and gene transfer for strain
improvement for L-leucine and L-valine production by fermentation

AU BATHE B; BASTUCK C; TAUCH A; MCHARDY A
AN 2002-19152 BIOTECHDS
PI EP 1217069 **26 Jun 2002**

L121 ANSWER 48 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New L-lactate dehydrogenase gene from coryneform bacteria, useful, when
overexpressed, for increasing fermentative production of L-amino acid;
vector-mediated gene transfer and expression in host cell for strain
improvement and **L-lysine preparation**

AU FARWICK M; HUTHMACHER K; BATHE B; PFEFFERLE W
AN 2002-14541 BIOTECHDS
PI EP 1186657 **13 Mar 2002**

L121 ANSWER 49 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New nucleic acid encoding ribosomal protein 12 of coryneform bacteria,
useful, when overexpressed, for increasing fermentative **amino**
acid synthesis;
vector-mediated gene transfer and expression in host cell for strain
improvement and **L-lysine preparation**

AU MOECKEL B; BATHE B; HANS S; KREUTZER C; HERMANN T; PFEFFERLE W; BINDER M
AN 2003-04181 BIOTECHDS
PI DE 10162386 **29 Aug 2002**

L121 ANSWER 50 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New hemD and hemB genes and polypeptides of coryneform bacteria, useful,
when overexpressed, for increasing fermentative production of amino
acids;
plasmid-mediated uroporphyrinogen-III synthase and
delta-aminolevulinic acid dehydratase gene transfer and expression in
Corynebacterium glutamicum for L-lysine production

AU FARWICK M; HUTHMACHER K; SCHISCHKA N; MARX A; PFEFFERLE W
AN 2002-17445 BIOTECHDS
PI DE 10145585 **2 May 2002**

L121 ANSWER 51 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New tmk gene of Coryneform bacteria, useful when suppressed, for
increasing fermentative production of L-amino acids, encodes a
thymidylate kinase;
L-lysine production by recombinant **Corynebacterium**

glutamicum useful for food, medicine and pharmaceutical industry

AU FARWICK M; HUTHMACHER K; MARX A; PFEFFERLE W
 AN 2002-15600 BIOTECHDS
 PI DE 10140095 28 Mar 2002

L121 ANSWER 52 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
 TI New cysD, N, K, E and H genes from coryneform bacteria, useful, when over expressed, for increasing fermentative production of L-amino acids; vector plasmid pEC-XK99E-mediated recombinant protein gene transfer and expression in Escherichia coli for use in L-**amino acid preparation** and medicine, pharmaceutical and food industries

AU FARWICK M; HUTHMACHER K; PFEFFERLE W; SCHISCHKA N; BATHE B
 AN 2002-16465 BIOTECHDS
 PI DE 10136986 21 Mar 2002

L121 ANSWER 53 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
 TI RodA genes from coryneform bacteria, useful, when overexpressed, for increasing fermentative production of L-amino acid, especially L-lysine; vector plasmid pEC-XK99E-mediated recombinant protein gene transfer and expression in Escherichia coli for use in L-**amino acid preparation** and medicine, pharmaceutical and food industries

AU FARWICK M; HUTHMACHER K; BATHE B; PFEFFERLE W
 AN 2002-16464 BIOTECHDS
 PI DE 10132947 21 Mar 2002

L121 ANSWER 54 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
 TI New ftsX gene from coryneform bacteria, useful, when over expressed, for increasing fermentative production of L-amino acid, especially L-lysine; vector plasmid pEC-XK99E-mediated recombinant protein gene transfer and expression in Escherichia coli for use in L-**amino acid preparation**, medicine, pharmaceutical and food industries

AU FARWICK M; HUTHMACHER K; BREHME J; RIEPING M; PFEFFERLE W
 AN 2002-16463 BIOTECHDS
 PI DE 10132176 21 Mar 2002

L121 ANSWER 55 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
 TI New metD gene of coryneform bacteria, useful when suppressed, for increasing fermentative production of L-amino acids, e.g. for animal nutrition;
Corynebacterium glutamicum fermentation for methionine and lysine production

AU REY D; RUECKERT C; BATHE B; HUTHMACHER K; PFEFFERLE W; PUEHLER A; KALINOWSKI J
 AN 2003-07731 BIOTECHDS
 PI DE 10126164 5 Dec 2002

L121 ANSWER 56 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
 TI New polynucleotide representing mtrA and B genes of coryneform bacteria, useful, when suppressed, for increasing fermentative production of amino acids; vector-mediated recombinant protein gene transfer and expression in host cell and fermentation for use in medicine, pharmaceutical and food industry, as feedstuff, DNA primer, DNA probe, DNA microarray and DNA chip

AN 2002-18760 BIOTECHDS
 PI DE 10125089 23 May 2002

L121 ANSWER 57 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
 TI New ccpA2 gene from coryneform bacteria, useful, when suppressed, for increasing fermentative production of L-amino acids, particularly lysine; metabolic engineering for L-lysine production in

Corynebacterium glutamicum

AU MOECKEL B; KREUTZER C; HERMANN T; FARWICK M; MARX A; PFEFFERLE W
AN 2002-16217 BIOTECHDS
PI DE 10123071 7 Mar 2002

L121 ANSWER 58 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Improved production of L-amino acids in coryneform bacteria, useful particularly in animal nutrition, by reducing activity of malate-quinone oxidoreductase;
mutant bacterium construction for strain improvement and **amino acid preparation**

AU FARWICK M; BATHE B; HERMANN T; MARX A; PFEFFERLE W
AN 2003-06530 BIOTECHDS
PI DE 10117816 17 Oct 2002

L121 ANSWER 59 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Fermentative production of L-amino acids, useful especially in animal nutrition, by fermenting Coryneform bacteria in which fructose-bisphosphate aldolase gene is weakened;
amino acid production via bacterium culture medium fermentation for food and pharmaceutical industry

AU FARWICK M; BATHE B; HERMANN T; MARX A
AN 2003-03387 BIOTECHDS
PI DE 10113011 19 Sep 2002

L121 ANSWER 60 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New isolated polynucleotide from coryneform bacteria, useful for increasing production of amino acids, comprises extended genes for 1- or 6- phosphofructokinase;
lysine production by **Corynebacterium glutamicum**

AU FARWICK M; BATHE B; BREHME J; HUTHMACHER K
AN 2003-07033 BIOTECHDS
PI DE 10112992 26 Sep 2002

L121 ANSWER 61 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New dep34 gene from coryneform bacteria, useful, when inactivated, for increasing fermentative production of L-amino acid, especially L-lysine; plasmid-mediated inactivated mutant gene transfer and expression in **Corynebacterium glutamicum** for use in food and pharmaceutical industry

AU FARWICK M; HUTHMACHER K; HERMANN T; BATHE B; PFEFFERLE W
AN 2002-14941 BIOTECHDS
PI DE 10112429 21 Mar 2002

L121 ANSWER 62 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New menE gene of coryneform bacteria, useful when suppressed for increasing fermentative production of L-amino acids, encodes an O-succinylbenzoic acid CoA-ligase;
vector-mediated gene transfer and expression in host cell for strain improvement and **L-lysine preparation**

AU FARWICK M; HUTHMACHER K; PFEFFERLE W; MARX A
AN 2002-15772 BIOTECHDS
PI DE 10112106 28 Mar 2002

L121 ANSWER 63 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New trehalose-6-phosphate synthase gene from coryneform bacteria, useful, when suppressed for increasing fermentative production of amino acids, especially lysine;
vector-mediated gene transfer and expression in host cell for strain improvement and **amino acid preparation**

AU HERMANN T; WOLF A; MORBACH S; KRAEMER R
AN 2003-01018 BIOTECHDS
PI DE 10110760 1 Aug 2002

L121 ANSWER 64 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
 TI Fermentative production of L-amino acids, especially lysine or valine, by fermenting Coryneform bacteria in which the nadA and/or nadC gene is weakened;
 vector expression in bacterium host cell, fermentation and mutation for amino acid production and food
 AU MOECKEL B; HERMANN T; PFEFFERLE W
 AN 2003-02411 BIOTECHDS
 PI DE 10110344 **16 May 2002**

L121 ANSWER 65 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
 TI New oxyR gene from coryneform bacteria, useful, when overexpressed, for increasing fermentative production of L-amino acids, particularly lysine; vector plasmid pT-oxyRexp-mediated recombinant protein gene transfer and expression in host cell and fermentation for use in L-**amino acid preparation** and in medicine, pharmaceutical and food industries
 AU MARX A; FARWICK M; HERMANN T; SCHISCHKA N; BATHE B
 AN 2002-15933 BIOTECHDS
 PI DE 10110053 **7 Mar 2002**

L121 ANSWER 66 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
 TI New ccpA1 gene from coryneform bacteria, useful, when suppressed, for increasing fermentative production of L-amino acids, particularly lysine; involving fermentation and vector plasmid pCR2.1-mediated gene transfer for expression in Escherichia coli for use in L-**amino acid preparation**, medicine, pharmaceutical and food industries
 AU MOECKEL B; KREUTZER C
 AN 2002-15467 BIOTECHDS
 PI DE 10110052 **7 Mar 2002**

L121 ANSWER 67 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
 TI New pepC gene of Coryneform bacteria, useful when suppressed, for increasing fermentative production of L-amino acids, encodes an aminopeptidase I;
 vector-mediated gene transfer and expression in host cell for strain improvement and L-**lysine preparation**
 AU FARWICK M; HUTHMACHER K; BATHE B; RIEPING M; PFEFFERLE W
 AN 2002-15771 BIOTECHDS
 PI DE 10108828 **28 Mar 2002**

L121 ANSWER 68 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
 TI New polynucleotide encoding the CysQ transporter of coryneform bacteria, useful, when over expressed, for increasing fermentative production of amino acids;
 vector-mediated recombinant protein gene transfer and expression in host cell and fermentation for use in L-**amino acid preparation**
 AU FARWICK M; HUTHMACHER K; BATHE B; PFEFFERLE W
 AN 2002-18235 BIOTECHDS
 PI DE 10057801 **23 May 2002**

L121 ANSWER 69 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
 TI New dps gene of coryneform bacteria, useful when overexpressed, for increasing fermentative production of L-amino acids, encodes a DNA-protection protein;
 vector-mediated gene transfer and expression in host cell for strain improvement and L-**lysine preparation**
 AU BATHE B; KREUTZER C; RIEPING M; MARX A; FARWICK M; PFEFFERLE W
 AN 2002-15769 BIOTECHDS
 PI DE 10046623 **28 Mar 2002**

L121 ANSWER 70 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN

TI New polynucleotide from coryneform bacteria, useful when overexpressed for increasing fermentative amino acid production, encodes sigma factor D;
vector-mediated gene transfer and expression in host cell for strain improvement and **L-lysine preparation**

AU BATHE B; KREUTZER C; MARTENS M; FARWICK M; HERRMANN T; PFEFFERLE W
AN 2002-15768 BIOTECHDS
PI DE 10043331 **14 Mar 2002**

L121 ANSWER 71 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New polynucleotide from coryneform bacteria, useful when weakened, for increasing fermentative amino acid production, encodes lipoic acid synthetase;
vector-mediated gene transfer and expression in host cell for strain improvement and **L-lysine preparation**

AU MOECKEL B; PFEFFERLE W; BUCHHOLZ M
AN 2002-15767 BIOTECHDS
PI DE 10042742 **14 Mar 2002**

L121 ANSWER 72 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New polynucleotide from coryneform bacteria, useful, when weakened, for increasing fermentative amino acid production, encodes lipoprotein ligase B;
vector-mediated gene transfer and expression in host cell for strain improvement and **L-lysine preparation**

AU MOECKEL B; PFEFFERLE W; BUCHHOLZ M
AN 2002-15766 BIOTECHDS
PI DE 10042739 **14 Mar 2002**

L121 ANSWER 73 OF 111 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 71
TI Genes of antibiotic-synthesizing actinomycetes and their use in analysis of gene expression profiles and gene discovery
SO Eur. Pat. Appl., 52 pp.
CODEN: EPXXDW
IN Omura, Satoshi; Ikeda, Jaruo; Ishikawa, Jun; Horikawa, Hiroshi; Shiba, Tadayoshi; Sakaki, Yoshiyuki; Hattori, Masahira
AN 2003:724938 HCAPLUS
DN 139:210744

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1262562	A2	20021204	EP 2002-11679	20020531
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
EP 1262562	A2	20021204	EP 2002-11679	20020531
EP 1262562	A3	20040609		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

L121 ANSWER 74 OF 111 HCAPLUS COPYRIGHT 2004 ACS on STN
TI Cloning of 1- and 6-phosphofructokinase genes from Coryneform bacteria and their attenuation for increasing yields of L-lysine in fermentation
SO PCT Int. Appl., 47 pp.
CODEN: PIXXD2
IN Farwick, Mike; Bathe, Brigitte; Brehme, Jennifer; Huthmacher, Klaus
AN 2002:736394 HCAPLUS
DN 137:261991

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002074944	A1	20020926	WO 2002-EP2830	20020314 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,				

UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
 CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

DE 10112992 A1 20020926 DE 2001-10112992 20010317 <--
 US 2003092137 A1 20030515 US 2002-98626 20020318

L121 ANSWER 75 OF 111 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Protein and DNA sequence of **Corynebacterium** ribosomal protein
 S12 gene rpsL and its use in amino acid production with recombinant coryneform
 bacteria

SO PCT Int. Appl., 56 pp.
 CODEN: PIXXD2

IN Moeckel, Bettina; Bathe, Brigitte; Hans, Stephan; Kreutzer, Caroline;
 Hermann, Thomas; Pfefferle, Walter; Binder, Michael

AN 2002:658267 HCAPLUS

DN 137:212013

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002066651	A2	20020829	WO 2002-EP573	20020122 <--
	WO 2002066651	A3	20030109		
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				
	CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,				
	GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,				
	LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,				
	PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,				
	UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW:				
	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,				
	CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,				
	BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	DE 10162386	A1	20020829	DE 2001-10162386	20011219 <--
	EP 1360298	A2	20031112	EP 2002-716672	20020122
	R:				
	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				
	IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	BR 2002007284	A	20040210	BR 2002-7284	20020122
	US 2002155557	A1	20021024	US 2002-75460	20020215 <--

L121 ANSWER 76 OF 111 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Sequences of hemD and hmB gene from **corynebacteria** and use
 thereof in production of L-lysine

SO PCT Int. Appl., 49 pp.
 CODEN: PIXXD2

IN Farwick, Mike; Huthmacher, Klaus; Pfefferle, Walter; Schischka, Natalie;
 Marx, Achim

AN 2002:332215 HCAPLUS

DN 136:354247

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002034775	A2	20020502	WO 2001-EP11705	20011010 <--
	WO 2002034775	A3	20020919		
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				
	CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,				
	GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,				
	LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL,				
	PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG,				
	UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW:				
	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,				
	DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,				
	BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	DE 10145585	A1	20020502	DE 2001-10145585	20010915 <--
	AU 2002018223	A5	20020506	AU 2002-18223	20011010 <--

L121 ANSWER 77 OF 111 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Coryneform bacteria menE gene encoding o-succinylbenzoic acid coA ligase

and a method for fermentative preparation of amino acids in bacteria in which the menE gene is attenuated

SO PCT Int. Appl., 43 pp.
CODEN: PIXXD2

IN Farwick, Mike; Huthmacher, Klaus; Pfefferle, Walter; Marx, Achim
AN 2002:240996 HCAPLUS
DN 136:258366

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002024937	A1	20020328	WO 2001-EP9221	20010809 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	DE 10112106	A1	20020328	DE 2001-10112106	20010314 <--
	US 2002102663	A1	20020801	US 2001-834722	20010416 <--
	AU 2001079811	A5	20020402	AU 2001-79811	20010809 <--
	EP 1319084	A1	20030618	EP 2001-958064	20010809
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

L121 ANSWER 78 OF 111 HCAPLUS COPYRIGHT 2004 ACS on STN
TI Sequence of pepC gene from **corynebacteria** and use thereof in **synthesis** of L-lysine

SO PCT Int. Appl., 43 pp.
CODEN: PIXXD2

IN Farwick, Mike; Huthmacher, Klaus; Bathe, Brigitte; Rieping, Mechthild; Pfefferle, Walter
AN 2002:240987 HCAPLUS
DN 136:278224

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002024928	A1	20020328	WO 2001-EP8708	20010727 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	DE 10108828	A1	20020328	DE 2001-10108828	20010223 <--
	US 2002098554	A1	20020725	US 2001-804073	20010313 <--
	AU 2001089765	A5	20020402	AU 2001-89765	20010727 <--

L121 ANSWER 79 OF 111 HCAPLUS COPYRIGHT 2004 ACS on STN
TI Sequences of dps gene from **corynebacteria** and use thereof in production of L-lysine

SO PCT Int. Appl., 39 pp.
CODEN: PIXXD2

IN Bathe, Brigitte; Kreutzer, Caroline; Rieping, Mechthild; Marx, Achim; Farwick, Mike; Pfefferle, Walter
AN 2002:240813 HCAPLUS
DN 136:278218

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002024737	A1	20020328	WO 2001-EP10523	20010912 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				

CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
 GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
 LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL,
 PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG,
 UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
 BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

DE 10046623 A1 20020328 DE 2000-10046623 20000920 <--
 AU 2002012232 A5 20020402 AU 2002-12232 20010912 <--
 EP 1319019 A1 20030618 EP 2001-980373 20010912
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
 US 2002106760 A1 20020808 US 2001-955315 20010919 <--

L121 ANSWER 80 OF 111 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Sequence of tmk gene from **corynebacteria** and use thereof in
synthesis of L-lysine

SO PCT Int. Appl., 43 pp.

CODEN: PIXXD2

IN Farwick, Mike; Huthmacher, Klaus; Marx, Achim; Pfefferle, Walter

AN 2002:240792 HCAPLUS

DN 136:278217

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002024716	A2	20020328	WO 2001-EP10268	20010906 <--
	WO 2002024716	A3	20021205		
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				
	CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,				
	GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,				
	LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL,				
	PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG,				
	UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,				
	DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,				
	BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	DE 10140095	A1	20020328	DE 2001-10140095	20010816 <--
	AU 2002014966	A5	20020402	AU 2002-14966	20010906 <--
	EP 1319077	A2	20030618	EP 2001-983465	20010906
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				
	IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	US 2002137065	A1	20020926	US 2001-955203	20010919 <--

L121 ANSWER 81 OF 111 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Sequence of dep34 gene from **corynebacteria** and use thereof in
synthesis of L-lysine

SO PCT Int. Appl., 42 pp.

CODEN: PIXXD2

IN Farwick, Mike; Huthmacher, Klaus; Pfefferle, Walter; Hermann, Thomas;
 Bathe, Brigitte

AN 2002:220807 HCAPLUS

DN 136:261909

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002022843	A2	20020321	WO 2001-EP9313	20010811 <--
	WO 2002022843	A3	20020711		
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				
	CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,				
	GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,				
	LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,				
	RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ,				
	VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,				
	DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,				

BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
 DE 10112429 A1 20020321 DE 2001-10112429 20010315 <--
 AU 2002019032 A5 20020326 AU 2002-19032 20010811 <--
 EP 1315815 A2 20030604 EP 2001-984655 20010811
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
 US 2002106757 A1 20020808 US 2001-946763 20010906 <--

L121 ANSWER 82 OF 111 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Sequences of ftsX gene from **corynebacteria** and use thereof in
 production of L-lysine

SO PCT Int. Appl., 46 pp.

CODEN: PIXXD2

IN Farwick, Mike; Huthmacher, Klaus; Pfefferle, Walter; Brehme, Jennifer;
 Rieping, Mechthild

AN 2002:220644 HCAPLUS

DN 136:261902

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002022670	A1	20020321	WO 2001-EP9375	20010814 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10132176	A1	20020321	DE 2001-10132176	20010703 <--
AU 2001087682	A5	20020326	AU 2001-87682	20010814 <--
US 2002107377	A1	20020808	US 2001-946769	20010906 <--

L121 ANSWER 83 OF 111 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Sequences of rodA gene from **corynebacteria** and use thereof in
 production of L-lysine

SO PCT Int. Appl., 46 pp.

CODEN: PIXXD2

IN Farwick, Mike; Huthmacher, Klaus; Pfefferle, Walter; Bathe, Brigitte

AN 2002:220642 HCAPLUS

DN 136:261900

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002022668	A1	20020321	WO 2001-EP9097	20010807 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10132947	A1	20020321	DE 2001-10132947	20010706 <--
AU 2001085878	A5	20020326	AU 2001-85878	20010807 <--
US 2002051993	A1	20020502	US 2001-950071	20010912 <--
US 6777206	B2	20040817		

L121 ANSWER 84 OF 111 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Sequence of oxyR gene from **corynebacteria** and use thereof in
synthesis of L-lysine

SO PCT Int. Appl., 50 pp.

CODEN: PIXXD2

IN Marx, Achim; Farwick, Mike; Hermann, Thomas; Schischka, Natalie; Bathe,

Brigitte
AN 2002:171943 HCAPLUS
DN 136:231334

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002018431	A1	20020307	WO 2001-EP8388	20010720 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	DE 10110053	A1	20020307	DE 2001-10110053	20010302 <--
	AU 2001089706	A5	20020313	AU 2001-89706	20010720 <--
	EP 1313758	A1	20030528	EP 2001-969448	20010720
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	US 2002064839	A1	20020530	US 2001-938641	20010827 <--

L121 ANSWER 85 OF 111 HCAPLUS COPYRIGHT 2004 ACS on STN
TI Sequence of ccpA2 gene from **corynebacteria** and use thereof in **synthesis** of L-lysine
SO PCT Int. Appl., 43 pp.
CODEN: PIXXD2

IN Moeckel, Bettina; Kreutzer, Caroline; Hermann, Thomas; Farwick, Mike; Marx, Achim; Pfefferle, Walter

AN 2002:171941 HCAPLUS
DN 136:231332

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002018429	A1	20020307	WO 2001-EP7386	20010628 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	DE 10123071	A1	20020307	DE 2001-10123071	20010511 <--
	AU 2001091658	A5	20020313	AU 2001-91658	20010628 <--
	EP 1313759	A1	20030528	EP 2001-971740	20010628
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	US 2002068336	A1	20020606	US 2001-938642	20010827 <--
	US 6689586	B2	20040210		
	US 2004209285	A1	20041021	US 2003-724827	20031202

L121 ANSWER 86 OF 111 HCAPLUS COPYRIGHT 2004 ACS on STN
TI Sequence of ccpA1 gene from **corynebacteria** and use thereof in **synthesis** of L-lysine
SO PCT Int. Appl., 38 pp.
CODEN: PIXXD2

IN Moeckel, Bettina; Kreutzer, Caroline

AN 2002:171931 HCAPLUS
DN 136:231329

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002018419	A2	20020307	WO 2001-EP8356	20010719 <--
	WO 2002018419	A3	20021031		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
 CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
 GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
 LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
 RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ,
 VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
 BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
 DE 10110052 A1 20020307 DE 2001-10110052 20010302 <--
 AU 2002012114 A5 20020313 AU 2002-12114 20010719 <--
 EP 1311685 A2 20030521 EP 2001-980214 20010719
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
 US 2002151001 A1 20021017 US 2001-938540 20010827 <--

L121 ANSWER 87 OF 111 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Protein and DNA sequence of **Corynebacterium** ribosomal protein
 Sl2 gene rpsL and its use in amino acid production with recombinant coryneform
 bacteria

SO U.S. Pat. Appl. Publ., 21 pp.

CODEN: USXXCO

IN Moeckel, Bettina; Bathe, Brigitte; Stephan, Hans; Kreutzer, Caroline;
 Hermann, Thomas; Pfefferle, Walter; Binder, Michael

AN 2002:658671 HCAPLUS

DN 137:196763

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI US 2002119549	A1	20020829	US 2001-984711	20011031 <--

L121 ANSWER 88 OF 111 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Sequences of **Corynebacterium** glutamicum rpoB gene encoding
 β subunit of RNA polymerase B for fermentation of L-lysine

SO U.S. Pat. Appl. Publ., 36 pp.

CODEN: USXXCO

IN Moeckel, Bettina; Bathe, Brigitte; Hermann, Thomas; Pfefferle, Walter;
 Binder, Michael

AN 2002:658668 HCAPLUS

DN 137:196689

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
PI US 2002119537	A1	20020829	US 2001-887052	20010625 <--
US 6783967	B2	20040831		
US 2003166884	A1	20030904	US 2002-76406	20020219
US 2004180359	A1	20040916	US 2003-706082	20031113

L121 ANSWER 89 OF 111 BIOTECHNO COPYRIGHT 2004 Elsevier Science B.V. on STN

TI Effects of UV treatment on the proline-linked pentose phosphate pathway
 for phenolics and L-DOPA synthesis in dark germinated Vicia faba

SO Process Biochemistry, (2002), 37/11 (1285-1295), 40
 reference(s)

CODEN: PBCHE5 ISSN: 0032-9592

AU Shetty P.; Atallah M.T.; Shetty K.

AN 2002:34516962 BIOTECHNO

L121 ANSWER 90 OF 111 MEDLINE on STN DUPLICATE 72

TI Changes of pentose phosphate pathway flux in vivo in
Corynebacterium glutamicum during leucine-limited batch
 cultivation as determined from intracellular metabolite concentration
 measurements.

SO Metabolic engineering, (2002 Oct) 4 (4) 295-305.

Journal code: 9815657. ISSN: 1096-7176.

AU Moritz Bernd; Striegel Katharina; de Graaf Albert A; Sahm Hermann

AN 2003132558 MEDLINE

L121 ANSWER 91 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI **Corynebacterium**-originated **glucose-6-**

phosphate dehydrogenase, modified to improve
productivity of an L-amino acid, e.g., L-lysine, by a microorganism;
vector-mediated gene transfer and expression in host cell for
recombinant protein production

AU YOKOI H; ANDO S; OCHIAI K; YONETANI Y; HASHIMOTO S

AN 2002-09438 BIOTECHDS

PI WO 2001098472 27 Dec 2001

L121 ANSWER 92 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN

TI Preparing L-amino acids by fermenting coryneform bacteria transformed
with the **glucose-6-phosphate-**
dehydrogenase gene is particularly useful to produce L-lysine and
L-threonine;

which are useful in animal nutrition, human medicine, and
pharmaceutical industry

AU Burke K; Sahm H; Eggeling L; Moritz B; Dunican L K; McCormack A;
Stapelton C; Moekel B; Thierbach G

AN 2002-02626 BIOTECHDS

PI WO 2001070995 27 Sep 2001

L121 ANSWER 93 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN

TI New polynucleotide sequences derived from **Corynebacterium**
glutamicum, useful as primers for preparing DNA of genes that display an
effect corresponding to the *opcA* gene by the polymerase chain reaction,
or as hybridization probes;

L-lysine production, DNA probe and DNA primer

AU Dunican L K; McCormack A; Stapelton C; Burke K; Moritz B; Eggeling L;
Sahm H; Moeckel B; Weissenborn A

AN 2001-08007 BIOTECHDS

PI WO 2001004322 18 Jan 2001

L121 ANSWER 94 OF 111 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 76

TI Process for the fermentative preparation of L-amino acids in coryneform
bacteria with amplification of the *gnd* gene

SO PCT Int. Appl., 59 pp.

CODEN: PIXXD2

IN Dunica, L. K.; McCormack, Ashling; Stapelton, Cliona; Burke, Kevin;
Moeckel, Bettina

AN 2001:713591 HCAPLUS

DN 135:268190

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
------------	------	------	-----------------	------

WO 2001071012	A1	20010927	WO 2000-EP6299	20000705 <--
W: AU, BR, CA, CN, HU, ID, JP, KR, MX, PL, RU, SK, UA, ZA				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,				
PT, SE				
CA 2374265	AA	20010927	CA 2000-2374265	20000705 <--
EP 1179076	A1	20020213	EP 2000-951336	20000705 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				
IE, FI				
BR 2000010817	A	20020305	BR 2000-10817	20000705 <--

L121 ANSWER 95 OF 111 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 77

TI Process for the fermentative preparation of L-amino acids with
amplification of the *tkt* gene

SO PCT Int. Appl., 53 pp.

CODEN: PIXXD2

IN Dunican, L. K.; McCormack, Ashling; Stapelton, Cliona; Burke, Kevin;
Moeckel, Bettina; Thierbach, Georg

AN 2001:693552 HCAPLUS

DN 135:252777

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001068894	A1	20010920	WO 2000-EP6305	20000705 <--
	W: AU, BR, CA, CN, HU, ID, JP, KR, MX, PL, RU, SK, UA, ZA				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	CA 2374012	AA	20010920	CA 2000-2374012	20000705 <--
	BR 2000010713	A	20020213	BR 2000-10713	20000705 <--
	EP 1179084	A1	20020213	EP 2000-945875	20000705 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

L121 ANSWER 96 OF 111 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 78

TI **Corynebacterium** glutamicum genes encoding metabolic pathway proteins

SO PCT Int. Appl., 316 pp.

CODEN: PIXXD2

IN Pompejus, Markus; Kroeger, Burkhard; Schroeder, Hartwig; Zelder, Oskar; Haberhauer, Gregor; Kim, Jun-Won; Lee, Heung-Shick; Hwang, Byung-Joon

AN 2001:676795 HCAPLUS

DN 135:222397

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001066573	A2	20010913	WO 2000-IB2035	20001222 <--
	WO 2001066573	A3	20020510		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2402186	AA	20010913	CA 2000-2402186	20001222 <--
	EP 1261718	A2	20021204	EP 2000-987602	20001222 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	BR 2000017148	A	20030311	BR 2000-17148	20001222
	JP 2003525623	T2	20030902	JP 2001-565737	20001222
	ZA 2002008060	A	20031110	ZA 2002-8060	20021008

L121 ANSWER 97 OF 111 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 79

TI Increasing yields of amino acids from microbial hosts by increasing intracellular levels of NADPH

SO PCT Int. Appl., 45 pp.

CODEN: PIXXD2

IN O'Donohue, Michael R.; Hanke, Paul D.

AN 2001:78542 HCAPLUS

DN 134:146503

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001007626	A2	20010201	WO 2000-US19914	20000721 <--
	WO 2001007626	A3	20010531		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2377693	AA	20010201	CA 2000-2377693	20000721 <--

BR 2000012712	A	20020409	BR 2000-12712	20000721 <--
EP 1208205	A2	20020529	EP 2000-950529	20000721 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
US 6465238	B1	20021015	US 2000-621451	20000721 <--
JP 2003521888	T2	20030722	JP 2001-512892	20000721
NZ 517295	A	20040430	NZ 2000-517295	20000721
ZA 2002001268	A	20030303	ZA 2002-1268	20020214
US 2003017557	A1	20030123	US 2002-223355	20020820
US 6680190	B2	20040120		

L121 ANSWER 98 OF 111 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 80
 TI Sequences of Coryneform bacteria tal gene and uses thereof in fermentative preparation of L-amino acids

SO PCT Int. Appl., 47 pp.

CODEN: PIXXD2

IN Dunican, L. K.; McCormack, Ashling; Stapelton, Cliona; Burke, Kevin;
 Mockel, Bettina

AN 2001:50828 HCAPLUS

DN 134:111274

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	WO 2001004325	A1	20010118	WO 2000-EP6304	20000705 <--
	W: AU, BR, CA, CN, HU, ID, JP, KR, MX, PL, RU, SK, UA, ZA RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 6797509	B1	20040928	US 2000-531266	20000320
	CA 2348448	AA	20010118	CA 2000-2348448	20000705 <--
	EP 1109915	A1	20010627	EP 2000-956165	20000705 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	BR 2000006915	A	20010731	BR 2000-6915	20000705 <--
	AU 768599	B2	20031218	AU 2000-68220	20000705
	ZA 2001001703	A	20020528	ZA 2001-1703	20010228 <--
	ZA 2001001678	A	20020815	ZA 2001-1678	20010228 <--
	US 2004214219	A1	20041028	US 2004-847610	20040518

L121 ANSWER 99 OF 111 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 81

TI Complete genome sequence of Corynebacterium glutamicum ATCC 13032 and its genes and encoded proteins

SO Eur. Pat. Appl., 246 pp.

CODEN: EPXXDW

IN Nakagawa, Satochi; Mizoguchi, Hiroshi; Ando, Seiko; Hayashi, Mikiro;
 Ochiai, Keiko; Yokoi, Haruhiko; Tateishi, Naoko; Senoh, Akihiro; Ikeda,
 Masato; Ozaki, Akio

AN 2001:574896 HCAPLUS

Correction of: 2001:450980

DN 135:283981

Correction of: 135:29919

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	EP 1108790	A2	20010620	EP 2000-127688	20001218
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2002191370	A2	20020709	JP 2000-405096	20001215
	US 2002197605	A1	20021226	US 2000-738626	20001218

L121 ANSWER 100 OF 111 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Manufacture of five-carbon sugars and sugar alcohols using microorganisms deficient in or transformed with genes involved in pentose-phosphate pathway

SO PCT Int. Appl., 205 pp.

CODEN: PIXXD2

IN Miasnikov, Andrei; Ojamo, Heikki; Povelainen, Mira; Gros, Hakan; Toivari,

Mervi; Richard, Peter; Ruohonen, Laura; Koivuranta, Kari; Londesborough, John; Aristidou, Aristos; Penttilae, Merja; Plazanet-Menut, Claire; Deutscher, Josef

AN 2001:545704 HCAPLUS
DN 135:136473

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001053306	A2	20010726	WO 2001-FI51	20010122 <--
	WO 2001053306	A3	20020418		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	CA 2398237	AA	20010726	CA 2001-2398237	20010122 <--
	AU 2001031784	A5	20010731	AU 2001-31784	20010122 <--
	BR 2001007918	A	20021105	BR 2001-7918	20010122 <--
	EP 1254244	A2	20021106	EP 2001-903815	20010122 <--
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
	JP 2003520583	T2	20030708	JP 2001-553780	20010122
	US 2003068791	A1	20030410	US 2001-908744	20010720

L121 ANSWER 101 OF 111 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Homogeneous immunoassay
SO Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF

IN Kawaguchi, Mamoru; Shirahase, Yasushi; Hiura, Hisae

AN 2001:615669 HCAPLUS
DN 135:179717

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001228150	A2	20010824	JP 2000-37100	20000215 <--

L121 ANSWER 102 OF 111 HCAPLUS COPYRIGHT 2004 ACS on STN

TI **Corynebacterium** gene gpi and methods for producing amino acids, vitamins, and nucleotides with Coryneform bacteria

SO Eur. Pat. Appl., 32 pp.
CODEN: EPXXDW

IN Dunican, L. K.; McCormack, Ashling; Stapelton, Cliona; Burke, Kevin; O'Donohue, Michael; Marx, Achim; Mockel, Bettina

AN 2001:225316 HCAPLUS
DN 134:247993

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1087015	A2	20010328	EP 2000-118052	20000823 <--
	EP 1087015	A3	20030709		
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
	US 6586214	B1	20030701	US 1999-396478	19990915
	CA 2318507	AA	20010315	CA 2000-2318507	20000913 <--
	ZA 2000004911	A	20020313	ZA 2000-4911	20000914 <--
	CN 1288058	A	20010321	CN 2000-124519	20000915 <--
	BR 2000004208	A	20010410	BR 2000-4208	20000915 <--
	JP 2001136988	A2	20010522	JP 2000-282681	20000918 <--

L121 ANSWER 103 OF 111 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Analysis of the chromosome sequence of the legume symbiont Sinorhizobium meliloti strain 1021

SO Proceedings of the National Academy of Sciences of the United States of America (2001), 98(17), 9877-9882
CODEN: PNASA6; ISSN: 0027-8424

AU Capela, Delphine; Barloy-Hubler, Frederique; Gouzy, Jerome; Bothe, Gordana; Ampe, Frederic; Batut, Jacques; Boistard, Pierre; Becker, Anke; Boutry, Marc; Cadieu, Edouard; Dreano, Stephane; Gloux, Stephanie; Godrie, Therese; Goffeau, Andre; Kahn, Daniel; Kiss, Erno; Lelaure, Valerie; Masuy, David; Pohl, Thomas; Portetelle, Daniel; Puhler, Alfred; Purnelle, Benedicte; Ramsperger, Ulf; Renard, Clotilde; Thebault, Patricia; Vandenbol, Micheline; Weidner, Stefan; Galibert, Francis

AN 2001:634531 HCAPLUS
DN 136:258038

L121 ANSWER 104 OF 111 HCAPLUS COPYRIGHT 2004 ACS on STN
TI Development and validation of **Corynebacterium** DNA microarrays
SO Applied and Environmental Microbiology (2001), 67(5), 2310-2318
CODEN: AEMIDF; ISSN: 0099-2240

AU Loos, Andrea; Glanemann, Christoph; Willis, Laura B.; O'Brien, Xian M.; Lessard, Philip A.; Gerstmeir, Robert; Guillouet, Stephane; Sinskey, Anthony J.

AN 2001:335521 HCAPLUS
DN 136:64868

L121 ANSWER 105 OF 111 HCAPLUS COPYRIGHT 2004 ACS on STN
TI Metabolic fluxes and L-lysine synthesis by **Corynebacterium** glutamicum in relation to cellular total reducing activity
SO Process Biochemistry (Oxford, United Kingdom) (2001), 36(12), 1233-1240
CODEN: PBCHE5; ISSN: 1359-5113

AU Ruklisha, Maija; Paegle, Longina
AN 2001:561035 HCAPLUS
DN 135:269849

L121 ANSWER 106 OF 111 SCISEARCH COPYRIGHT (c) 2004 The Thomson Corporation. on STN DUPLICATE 82
TI Increased islet DNA synthesis and glucose-derived lipid and amino acid production in association with beta-cell hyperproliferation in normoglycaemic 60 (pancreatectomy rats
SO DIABETOLOGIA, (AUG 2001) Vol. 44, No. 8, pp. 1026-1033.
Publisher: SPRINGER-VERLAG, 175 FIFTH AVE, NEW YORK, NY 10010 USA.
ISSN: 0012-186X.

AU Lin Y Q; Montanya E; Leahy J L (Reprint)
AN 2001:705423 SCISEARCH

L121 ANSWER 107 OF 111 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN DUPLICATE 83
TI Effect of gluconic acid as a secondary carbon source on non-growing L-lysine producers cells of **Corynebacterium** glutamicum.
Purification and properties of 6-phosphogluconate dehydrogenase.
SO Enzyme and Microbial Technology, (7 Jun 2001) 28/9-10 (754-759).
Refs: 24
ISSN: 0141-0229 CODEN: EMTED2

AU Bianchi D.; Bertrand O.; Haupt K.; Coello N.
AN 2001209636 EMBASE

L121 ANSWER 108 OF 111 MEDLINE on STN DUPLICATE 84
TI Effect of transketolase modifications on carbon flow to the purine-nucleotide pathway in **Corynebacterium** ammoniagenes.
SO Applied microbiology and biotechnology, (2001 Sep) 56 (5-6) 710-7.
Journal code: 8406612. ISSN: 0175-7598.

AU Kamada N; Yasuhara A; Takano Y; Nakano T; Ikeda M
AN 2001555123 MEDLINE

L121 ANSWER 109 OF 111 SCISEARCH COPYRIGHT (c) 2004 The Thomson Corporation.
on STN

TI Comparative study of enzymes in testes and ovaries from adult
Dipetalogaster maximus (Uhler) and Triatoma infestans (Klug) (Hemiptera :
Reduviidae). Correlation with fine structural organization

SO EUROPEAN JOURNAL OF HISTOCHEMISTRY, (AUG 2001) Vol. 45, No. 3,
pp. 295-303.

Publisher: LUIGI PONZIO E FIGLIO, VIA D DA CATALOGNA 1/3, 27100 PAVIA,
ITALY.

ISSN: 1121-760X.

AU Scaraffia P Y; Maldonaldo C; Aoki A; De Burgos N M G (Reprint)

AN 2001:762780 SCISEARCH

L121 ANSWER 110 OF 111 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Graphitic nanotubes in luminescence assays

SO PCT Int. Appl., 118 pp.

CODEN: PIXXD2

IN Massey, Richard J.; Martin, Mark T.; Dong, Liwen; Lu, Ming; Fischer, Alan;
Jameison, Fabian; Liang, Pam; Hoch, Robert; Leland, Jonathon K.

AN 1997:618265 HCAPLUS

DN 127:275017

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9733176	A1	19970912	WO 1997-US3653	19970305
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5866434	A	19990202	US 1996-611347	19960306
AU 9720737	A1	19970922	AU 1997-20737	19970305
AU 724509	B2	20000921		
EP 885393	A1	19981223	EP 1997-908967	19970305
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001507787	T2	20010612	JP 1997-531989	19970305 <--
IL 125985	A1	20020725	IL 1997-125985	19970305 <--
RU 2189043	C2	20020910	RU 1998-116668	19970305 <--

L121 ANSWER 111 OF 111 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Homogeneous immunoassays using conjugates of analytes and substituted
analogs of **glucose-6-phosphate
dehydrogenases**

SO PCT Int. Appl., 121 pp.

CODEN: PIXXD2

IN Jakobovits, Edward B.; Silen, Joy L.; Levy, Mark J.; Goodman, Thomas C.;
Becker, Martin J.; Ullman, Edwin F.; Caldwell, Robert M.; Bott, Richard
R.; Barnett, Christopher Charles

AN 1995:294145 HCAPLUS

DN 122:185334

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9424559	A2	19941027	WO 1994-US3437	19940407
WO 9424559	A3	19950126		
W: CA, FI, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6455288	B1	20020924	US 1993-44857	19930408 <--
CA 2160115	AA	19941027	CA 1994-2160115	19940407
EP 710360	A1	19960508	EP 1994-923147	19940407
EP 710360	B1	19991110		

	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE
JP 08510638	T2	19961112 JP 1994-523227 19940407
AT 186598	E	19991115 AT 1994-923147 19940407
ES 2139087	T3	20000201 ES 1994-923147 19940407
US 6033890	A	20000307 US 1995-445463 19950522
US 6090567	A	20000718 US 1995-445464 19950522

=> s (l84 or l96) and 2001-2002/py

FILE 'MEDLINE'

1054245 2001-2002/PY

L122 0 (L73 OR L85) AND 2001-2002/PY

FILE 'SCISEARCH'

2010776 2001-2002/PY

L123 0 (L74 OR L86) AND 2001-2002/PY

FILE 'LIFESCI'

226951 2001-2002/PY

L124 0 (L75 OR L87) AND 2001-2002/PY

FILE 'BIOTECHDS'

42478 2001-2002/PY

L125 82 (L76 OR L88) AND 2001-2002/PY

FILE 'BIOSIS'

1133016 2001-2002/PY

L126 0 (L77 OR L89) AND 2001-2002/PY

FILE 'EMBASE'

912406 2001-2002/PY

L127 0 (L78 OR L90) AND 2001-2002/PY

FILE 'HCAPLUS'

2128985 2001-2002/PY

L128 115 (L79 OR L91) AND 2001-2002/PY

FILE 'NTIS'

37576 2001-2002/PY

L129 0 (L80 OR L92) AND 2001-2002/PY

FILE 'ESBIOBASE'

581159 2001-2002/PY

L130 0 (L81 OR L93) AND 2001-2002/PY

FILE 'BIOTECHNO'

246497 2001-2002/PY

L131 0 (L82 OR L94) AND 2001-2002/PY

FILE 'WPIDS'

2083142 2001-2002/PY

L132 94 (L83 OR L95) AND 2001-2002/PY

TOTAL FOR ALL FILES

L133 291 (L84 OR L96) AND 2001-2002/PY

=> dup rem l133

PROCESSING COMPLETED FOR L133

L134 136 DUP REM L133 (155 DUPLICATES REMOVED)

=> d tot

L134 ANSWER 1 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Use of *Cornebacterium glutamicum* cdsA gene encoding cyclopropane mycolate

synthase for fermentative production of L-lysine
SO U.S. Pat. Appl. Publ., 15 pp., Cont.-in-part of U.S. Ser. No. 577,856,
abandoned.
CODEN: USXXCO

IN Nampoothiri, K. Madhavan; Mockel, Bettina; Pfefferle, Walter; Eggeling,
Lothar; Sahm, Hermann

AN 2004:392359 HCAPLUS

DN 140:387058

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004092710	A1	20040513	US 2001-853641	20010514
DE 10021828	A1	20011108	DE 2000-10021828	20000504 <--

L134 ANSWER 2 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Sequences of **Corynebacterium** glutamicum rpoB gene and use for
making L-amino acids

SO U.S. Pat. Appl. Publ., 37 pp., Cont.-in-part of U.S. Ser. No. 887,052.
CODEN: USXXCO

IN Moeckel, Bettina; Bathe, Brigitte; Hermann, Thomas; Pfefferle, Walter;
Binder, Michael

AN 2003:696577 HCAPLUS

DN 139:208876

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003166884	A1	20030904	US 2002-76406	20020219
US 2002119537	A1	20020829	US 2001-887052	20010625 <--
US 6783967	B2	20040831		
US 2004180359	A1	20040916	US 2003-706082	20031113

L134 ANSWER 3 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Sequence of glbO gene from **corynebacteria** and use thereof in
synthesis of L-lysine

SO U.S. Pat. Appl. Publ., 14 pp., Cont.-in-part of U.S. Ser. No. 813,932.
CODEN: USXXCO

IN Mockel, Bettina; Marx, Achim; Pfefferle, Walter

AN 2003:696453 HCAPLUS

DN 139:213002

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003166173	A1	20030904	US 2002-139520	20020507
US 6759218	B2	20040706		
US 2002081673	A1	20020627	US 2001-813932	20010322 <--

L134 ANSWER 4 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN

TI **Corynebacterium** glutamicum genes opca and zwf and uses in
fermentative preparation of L-amino acids

SO U.S. Pat. Appl. Publ., 22 pp., Cont.-in-part of U.S. Ser. No. 531,267,
abandoned.
CODEN: USXXCO

IN Dunican, L. K.; Dunican, Rita; McCormack, Ashling; Stapleton, Cliona;
Burke, Kevin; Moritz, Bernd S.; Eggeling, Lothar; Sahm, Hermann; Mockel,
Bettina; Weissenborn, Anke

AN 2003:570554 HCAPLUS

DN 139:112782

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003138917	A1	20030724	US 2002-137655	20020503
ZA 2001001703	A	20020528	ZA 2001-1703	20010228 <--
ZA 2001001678	A	20020815	ZA 2001-1678	20010228 <--

L134 ANSWER 5 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Methods for carbon-centered radical mediated heavy hydrogen labeling of
compounds

SO U.S., 60 pp., Cont.-in-part of U.S. 6,649,736.

CODEN: USXXAM

IN Anderson, Vernon E.; Goshe, Michael B.

AN 2003:961174 HCAPLUS

DN 140:5313

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6660836	B1	20031209	US 2000-579112	20000525
	US 6649736	B1	20031118	US 1999-323741	19990601
	CA 2376003	AA	20001207	CA 2000-2376003	20000601
	WO 2000073325	A1	20001207	WO 2000-US15169	20000601
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1181307	A1	20020227	EP 2000-942659	20000601	<--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	US 2003208038	A1	20031106	US 2003-449299	20030529

L134 ANSWER 6 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New nucleic acid encoding citrate-lyase E from coryneform bacteria, useful, when suppressed, for increasing fermentative production of amino acids;

vector expression in host cell for production of recombinant protein for amino acid production

AU FARWICK M; HUTHMACHER K; MARX A; BATHE B; PFEFFERLE W

AN 2003-03178 BIOTECHDS

PI WO 2002059329 1 Aug 2002

L134 ANSWER 7 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Novel polynucleotides from **Corynebacterium** glutamicum useful for inducing and regulating expression of genes, including those that are involved in **amino acid biosynthesis**, in bacterial cells;

recombinant protein production via plasmid expression in host cell for enzyme transcription regulation and amino acid production

AU RAYAPATI P J; CRAFTON C M

AN 2003-00063 BIOTECHDS

PI WO 2002040679 23 May 2002

L134 ANSWER 8 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Polynucleotide sequence from coryneform bacteria useful for the fermentative preparation of nicotinic acid or its derivatives, encodes nadC gene which is enhanced, in particular over-expressed; vector plasmid pZ-nadCex-mediated phosphoenolpyruvate-carboxykinase gene transfer and expression in host cell for use as DNA chip, DNA microarray and DNA primer

AU BASTUCK C; BATHE B; DUSCH N; MOECKEL B; THIERBACH G

AN 2003-01847 BIOTECHDS

PI WO 2002038772 16 May 2002

L134 ANSWER 9 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Polynucleotide encoding the nadA gene useful for the preparation of nicotinic acid or its derivatives, as probes for discovering RNA, cDNA and DNA to isolate polynucleotides or genes which code for quinolinate synthetase A;

vector-mediated gene transfer, expression in host cell and DNA probe for strain improvement and **amino acid preparation**

AU BASTUCK C; BATHE B; DUSCH N; MOECKEL B; THIERBACH G
AN 2002-18489 BIOTECHDS
PI WO 2002038598 16 May 2002

L134 ANSWER 10 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI **Preparing** L-amino acids, particularly L-**threonine**,
for use in pharmaceutical and in food industries, comprises employing the
microorganisms of the Enterobacteriaceae family for fermentation in which
the **poxB** gene is attenuated;
vector-mediated gene transfer and expression in host cell for strain
improvement and **amino acid preparation**

AU RIEPING M; THIERBACH G
AN 2002-18565 BIOTECHDS
PI WO 2002036797 10 May 2002

L134 ANSWER 11 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Isolated polynucleotide from Coryneform bacteria, used for the
fermentative production of L-amino acids, comprises a sequence coding for
the **mike17** gene;
bacterium strain improvement and fermentation for foodstuff and
pharmaceutical production

AU FARWICK M; HUTHMACHER K; PFEFFERLE W
AN 2002-12996 BIOTECHDS
PI WO 2002027009 4 Apr 2002

L134 ANSWER 12 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New polynucleotide from coryneform bacteria coding for **dep67** gene, where
overexpression of the gene provides improved production of L-amino acids
particularly L-lysine in **corynebacterium** glutamicum;
plasmid vector-mediated recombinant protein gene transfer and
expression in Escherichia coli, DNA primer, polymerase chain reaction,
DNA microarray, DNA chip, DNA probe and fermentation for use in L-
amino acid and L-**lysine**
preparation

AU FARWICK M; HUTHMACHER K; HERMANN T; BATHE B; PFEFFERLE W
AN 2002-13587 BIOTECHDS
PI WO 2002027000 4 Apr 2002

L134 ANSWER 13 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Polynucleotides from Coryneform bacteria, coding for the enzymatic cobalt
reducing gene product **cobW**, involved in the biosynthesis of L-amino acids
(e.g. L-lysine);
plasmid **pCR2.1cobWint**-mediated **Corynebacterium** glutamicum
protein gene transfer and expression in bacterium for enzyme
expression reduction and enhancement for amino acid production

AU FARWICK M; HUTHMACHER K; SCHISCHKA N; PFEFFERLE W
AN 2002-13335 BIOTECHDS
PI WO 2002026992 4 Apr 2002

L134 ANSWER 14 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Isolated polynucleotide from Coryneform bacteria, used for the
fermentative production of L-amino acids, comprises a sequence coding for
the **msiK** gene;
recombinant protein gene, vector expression in host cell, culture
medium fermentation and enzyme gene useful for foodstuff and human
medicine

AU BATHE B; SCHISCHKA N; FARWICK M; PFEFFERLE W
AN 2002-12995 BIOTECHDS
PI WO 2002026989 4 Apr 2002

L134 ANSWER 15 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New **deaD** gene encoding polypeptide having activity of DNA/RNA helicase,
useful in bacteria for the fermentative preparation of L-amino acids,
particularly L-lysine, from glucose, molasses, starch, cellulose or

ethanol;

vector-mediated gene transfer and expression in Escherichia coli,
glucose, sucrose, lactose, fructose, molasses, starch, cellulose,
glycerol and ethanol fermentation and DNA microarray for use in L-
lysine and L-amino-acid
preparation

AU FARWICK M; HUTHMACHER K; BREHME J; PFEFFERLE W
AN 2002-13342 BIOTECHDS
PI WO 2002026787 **4 Apr 2002**

L134 ANSWER 16 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New truB gene encoding polypeptide having activity of tRNA pseudouridine
55 synthase, useful in bacteria for fermentative preparation of L-amino
acids, particularly L-lysine, from glucose, molasses, starch or ethanol;
vector-mediated gene transfer and expression in Escherichia coli,
glucose, sucrose, lactose, fructose, molasses, starch, cellulose,
glycerol and ethanol fermentation, DNA microarray and DNA chip for use
in **L-lysine and L-amino-acid**
preparation

AU FARWICK M; HUTHMACHER K; PFEFFERLE W; BATHE B
AN 2002-13341 BIOTECHDS
PI WO 2002026786 **4 Apr 2002**

L134 ANSWER 17 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Novel polynucleotide from Coryneform bacteria coding for PPGK gene,
useful as hybridization probe for detecting DNA to isolate nucleic acids,
polynucleotides or genes coding for transcription activator ppgK;
recombinant **Corynebacterium** glutamicum production useful for
L-amino acid production, especially L-lysine production

AU BATHE B; MARTENS M; HERMANN T
AN 2002-15776 BIOTECHDS
PI WO 2002026755 **4 Apr 2002**

L134 ANSWER 18 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New isolated deformylase polypeptide encoding polynucleotide from
coryneform bacteria which when present in attenuated form in L-lysine
producing bacteria, results in increased fermentative production of
L-lysine;
recombinant enzyme gene, vector expression in host cell, fermentation
for L-amino acid production

AU FARWICK M; HUTHMACHER K; BREHME J; PFEFFERLE W
AN 2002-13374 BIOTECHDS
PI WO 2002024922 **28 Mar 2002**

L134 ANSWER 19 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Novel polynucleotide from Coryneform bacteria coding for thyA gene,
useful as hybridization probe for detecting DNA to isolate nucleic acids,
polynucleotides or genes coding for thymidilate synthase;
recombinant protein gene, vector expression in host cell, enzyme gene
for L-amino acid production

AU MARX A; SCHISCHKA N; BATHE B; FARWICK M
AN 2002-13339 BIOTECHDS
PI WO 2002024919 **28 Mar 2002**

L134 ANSWER 20 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New polynucleotide from Coryneform bacteria coding for C4-dicarboxylate
transporter, useful for isolating nucleic acids, polynucleotides or genes
which code for C4-dicarboxylate transporter gene;
recombinant protein, vector expression in host cell, enzyme gene
enhancement for L-amino acid production

AU FARWICK M; HUTHMACHER K; BATHE B; HERMANN T; PFEFFERLE W
AN 2002-13338 BIOTECHDS
PI WO 2002024915 **28 Mar 2002**

L134 ANSWER 21 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
 TI Polynucleotide sequence encoding ndkA gene useful for preparation of L-amino acids e.g. L-lysine, and as hybridization probes for discovering RNA, cDNA and DNA to isolate genes encoding nucleotide diphosphate kinase;
 plasmid vector-mediated dihydrodipicolinate-synthase gene transfer and expression in Escherichia coli and DNA microarray and DNA chip for use in L-lysine and L-amino-acid preparation

AU BATHE B; BASTUCK C; MARX A; HERMANN T
 AN 2002-13337 BIOTECHDS
 PI WO 2002024880 28 Mar 2002

L134 ANSWER 22 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
 TI New ppsA gene of Coryneform bacteria, useful when overexpressed, for increasing fermentative production of L-amino acids, encodes a phosphoenol pyruvate synthase;
 vector-mediated pyruvate-water-dikinase gene transfer and expression in Coryneform glutamicum for enzyme activity enhancement for L-lysine production

AU MOECKEL B; MARX A; BASTUCK C; BUCHHOLZ M; PFEFFERLE W
 AN 2002-12968 BIOTECHDS
 PI WO 2002022829 21 Mar 2002

L134 ANSWER 23 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
 TI New protein kinase B, pknB gene from corynebacteria, useful as hybridization probe and overexpression of which gene in corynebacteria is useful for producing L-amino acids, in particular L-lysine;
 Corynebacterium sp. protein-kinase gene for use as a DNA probe or in production of L-lysine

AU BATHE B; HANS S; FARWICK M; HERMANN T
 AN 2002-13028 BIOTECHDS
 PI WO 2002022828 21 Mar 2002

L134 ANSWER 24 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
 TI Novel polynucleotide from coryneform bacteria coding for phosphotransferase system enzyme I, useful for isolating nucleic acids, polynucleotides or genes which code for phosphotransferase system enzyme I;
 bacterium strain improvement useful for L-amino acid, especially L-lysine, production

AU MOECKEL B; HANS S; SCHISCHKA N; PFEFFERLE W
 AN 2002-13248 BIOTECHDS
 PI WO 2002022827 21 Mar 2002

L134 ANSWER 25 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
 TI New atr43 gene of coryneform bacteria, useful when suppressed for increasing fermentative production of L-amino acids, encodes an ABC transporter protein;
 vector expression in host cell for recombinant protein, fermentation, mutagenesis useful for L-lysine, medicine, food, DNA array and biochip

AU FARWICK M; HUTHMACHER K; PFEFFERLE W
 AN 2002-12574 BIOTECHDS
 PI WO 2002022814 21 Mar 2002

L134 ANSWER 26 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
 TI New ccsB gene of coryneform bacteria, useful when overexpressed for increasing fermentative production of L-amino acids, encodes a cytochrome c synthesis protein;
 vector-mediated gene transfer and expression in host cell for strain improvement and L-amino acid preparation

AU FARWICK M; HUTHMACHER K; PFEFFERLE W; BATHE B; HERMANN T
 AN 2002-12659 BIOTECHDS

PI WO 2002022672 21 Mar 2002

L134 ANSWER 27 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New pstC2 gene of coryneform bacteria, useful when suppressed for
increasing fermentative production of L-amino acids, encodes a
membrane-bound phosphate transporter protein;
vector-mediated gene transfer and expression in host cell for strain
improvement and **L-amino acid preparation**

AU FARWICK M; HUTHMACHER K; PFEFFERLE W; BREHME J
AN 2002-12658 BIOTECHDS
PI WO 2002022671 21 Mar 2002

L134 ANSWER 28 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New sugA gene of coryneform bacteria, useful when suppressed for
increasing fermentative production of L-amino acids, encodes a sugar
transporter protein;
vector-mediated gene transfer and expression in host cell for strain
improvement and **L-amino acid preparation**

AU FARWICK M; HUTHMACHER K; PFEFFERLE W; HERMANN T; MARX A
AN 2002-12657 BIOTECHDS
PI WO 2002022669 21 Mar 2002

L134 ANSWER 29 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New gorA gene of coryneform bacteria, useful when suppressed for
increasing fermentative production of L-amino acids, encodes a
glutathione reductase;
vector-mediated gene transfer and expression in host cell for strain
improvement and **L-amino acid preparation**

AU FARWICK M; HUTHMACHER K; PFEFFERLE W; MARX A
AN 2002-12656 BIOTECHDS
PI WO 2002022666 21 Mar 2002

L134 ANSWER 30 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New Atr61 gene of Coryneform bacteria, useful when overexpressed, for
increasing fermentative production of L-amino acids, encodes an ABC
transporter protein;
vector-mediated gene transfer and expression in host cell for strain
improvement and **L-lysine preparation**

AU FARWICK M; HUTHMACHER K; PFEFFERLE W
AN 2002-13089 BIOTECHDS
PI WO 2002022633 21 Mar 2002

L134 ANSWER 31 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New pknD gene of Coryneform bacteria, useful when overexpressed, for
increasing fermentative production of L-amino acids, encodes a protein
kinase D protein;
plasmid pK18mobsac-pknD-XuctionL-mediated enzyme gene transfer and
expression in Escherichia coli and **Corynebacterium**
glutamicum for L-lysine production

AU BATHE B; SCHROEDER I; FARWICK M; HERMANN T
AN 2002-13334 BIOTECHDS
PI WO 2002022632 21 Mar 2002

L134 ANSWER 32 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Novel sahH gene from coryneform bacteria useful as probe to isolate genes
coding for adenosyl homocysteinase, and overexpression of which gene in
coryneform bacteria is useful for producing amino acids, e.g. L-lysine;
plasmid-mediated enzyme gene transfer and expression in
Corynebacterium glutamicum for L-methionine production

AU FARWICK M; HUTHMACHER K; BREHME J; PFEFFERLE W; BINDER M; GREISSINGER D;
THIERBACH G
AN 2002-16222 BIOTECHDS
PI WO 2002020806 14 Mar 2002

L134 ANSWER 33 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New polynucleotides isolated from coryneform bacteria coding for the luxS gene and a process for the fermentative preparation of amino acids using bacteria in which the luxS gene are attenuated;
vector plasmid pCR2-mediated chrA gene transfer and expression in Escherichia coli, fermentation, DNA primer, DNA probe, DNA chip and DNA microarray for use in **L-lysine** and **L-amino-acid preparation**, medicine and pharmaceutical industries and as feedstuff and food-additive
AU BATHE B; KREUTZER C; MARX A; PFEFFERLE W
AN 2002-11963 BIOTECHDS
PI WO 2002020799 **14 Mar 2002**

L134 ANSWER 34 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New polynucleotides isolated from coryneform bacteria coding for the chrA gene and a process for the fermentative preparation of amino acids using bacteria in which the chrA gene are attenuated;
vector plasmid pCR2-mediated chrA gene transfer and expression in Escherichia coli, fermentation, DNA primer, DNA probe, DNA chip and DNA microarray for use in **L-lysine** and **L-amino-acid preparation**, medicine and pharmaceutical industries and as feedstuff and food-additive
AU BATHE B; SCHISCHKA N; MARX A; PFEFFERLE W
AN 2002-12963 BIOTECHDS
PI WO 2002020793 **14 Mar 2002**

L134 ANSWER 35 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New polynucleotides isolated from coryneform bacteria coding for the dep33 gene and a process for the fermentative preparation of amino acids using bacteria in which the dep33 gene are attenuated;
gene overexpression in bacterium, useful for improved amino acid production
AU FARWICK M; HUTHMACHER K; PFEFFERLE W; HERMANN T; BATHE B
AN 2002-11966 BIOTECHDS
PI WO 2002020792 **14 Mar 2002**

L134 ANSWER 36 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Novel polynucleotide from Coryneform bacteria coding for hisC2 gene, useful as hybridization probe for detecting DNA to isolate nucleic acids, polynucleotides or genes coding for transcription regulator hisC2;
vector-mediated gene transfer, expression in host cell and DNA probe for strain improvement, **L-amino acid preparation**, DNA microarray or DNA chip construction and RNA, cDNA or DNA detection
AU FARWICK M; HUTHMACHER K; BATHE B; PFEFFERLE W
AN 2002-13086 BIOTECHDS
PI WO 2002020771 **14 Mar 2002**

L134 ANSWER 37 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New polynucleotides isolated from coryneform bacteria coding for the clpC gene and a process for the fermentative preparation of amino acids using bacteria in which the clpC gene is attenuated;
vector-mediated gene transfer and expression in **Corynebacterium glutamicum** host cell for strain improvement and **L-amino acid preparation**
AU FARWICK M; HUTHMACHER K; BATHE B; RIEPING M; PFEFFERLE W
AN 2002-11965 BIOTECHDS
PI WO 2002020574 **14 Mar 2002**

L134 ANSWER 38 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New polynucleotides isolated from coryneform bacteria coding for the gpmB gene and a process for the fermentative preparation of amino acids using bacteria in which the gpmB gene is enhanced;
vector-mediated gene transfer and expression in

Corynebacterium glutamicum host cell for strain improvement
and L-amino acid preparation

AU BATHE B; SCHROEDER I; PFEFFERLE W
AN 2002-11964 BIOTECHDS
PI WO 2002020573 14 Mar 2002

L134 ANSWER 39 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New polynucleotides isolated from coryneform bacteria coding for the chrS
gene and a process for the fermentative preparation of amino acids using
bacteria in which the chrS gene are attenuated;
enhancing histidine-kinase activity in **Corynebacterium**
glutamicum useful for amino acid production by fermentation

AU BATHE B; SCHISCHKA N; MARX A; PFEFFERLE W
AN 2002-11962 BIOTECHDS
PI WO 2002020572 14 Mar 2002

L134 ANSWER 40 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New polynucleotide isolated from coryneform bacteria coding for the gap2
gene and a process for the fermentative preparation of amino acids using
bacteria in which the gap2 gene is enhanced;
enhancing glyceraldehyde-3-phosphate-dehydrogenase activity in
Corynebacterium glutamicum for L-amino acid production by
fermentation

AU BATHE B; HANS S; PFEFFERLE W
AN 2002-11961 BIOTECHDS
PI WO 2002020542 14 Mar 2002

L134 ANSWER 41 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New polynucleotides from coryneform bacteria, which code for the metY
gene, useful in the fermentive preparation of L-amino acids, e.g.
L-lysine or L-methionine, and as hybridization probes for discovering
genes similar to metY gene;
vector-mediated gene transfer and expression in
Corynebacterium glutamicum for strain improvement

AU MOECKEL B; PFEFFERLE W; HUTHMACHER K; RUECKERT C; KALINOWSKI J; PUEHLER
A; BINDER M; GREISSINGER D; THIERBACH G
AN 2002-11967 BIOTECHDS
PI WO 2002018613 7 Mar 2002

L134 ANSWER 42 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New sigM gene from coryneform bacteria useful as probe to isolate genes
which code for sigma factor M, and overexpression of which gene in
coryneform bacteria is useful for producing amino acids, especially
L-lysine;
L-amino acid production by **Corynebacterium** glutamicum
fermentation

AU BATHE B; BASTUCK C; FARWICK M; HERMANN T; PFEFFERLE W
AN 2002-12572 BIOTECHDS
PI WO 2002018599 7 Mar 2002

L134 ANSWER 43 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New sigH gene from coryneform bacteria useful as a probe to isolate genes
which code for sigma factor H, and overexpression of which gene in
coryneform bacteria is useful for producing amino acids, especially
L-lysine;
L-amino acid production by **Corynebacterium** glutamicum
fermentation

AU BATHE B; SCHROEDER I; RIEPING M; MARX A; FARWICK M; PFEFFERLE W; HERMANN
T
AN 2002-12571 BIOTECHDS
PI WO 2002018598 7 Mar 2002

L134 ANSWER 44 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New citB gene from coryneform bacteria useful as a probe to isolate genes

which code for the CitB protein, and attenuation of which gene in coryneform bacteria is useful for producing amino acids, in particular L-lysine;

L-amino acid production by fermentation of bacterium expressing the transcription regulator citB protein

AU MOECKEL B; HERMANN T; FARWICK M; PFEFFERLE W; MARX A
AN 2002-12570 BIOTECHDS
PI WO 2002018596 7 Mar 2002

L134 ANSWER 45 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Polynucleotide from Coryneform bacteria coding for metR and/or metZ gene, useful as a hybridization probe for isolating nucleic acids, polynucleotides or genes which code for metR and/or metZ; useful for L-amino acid and feedstuff production

AU BATHE B; PFEFFERLE W; HUTHMACHER K; RUECKERT C; KALINOWSKI J; PUEHLER A; BINDER M; GREISSINGER D; THIERBACH G
AN 2002-12469 BIOTECHDS
PI WO 2002018430 7 Mar 2002

L134 ANSWER 46 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Novel polynucleotide from Coryneform bacteria coding for sigma factor E gene, useful as hybridization probe for isolating nucleic acids, polynucleotides or genes which code for sigE;

Corynebacterium glutamicum strain improvement for increased L-amino acid production by fermentation

AU MOECKEL B; HERMANN T; FARWICK M; BINDER M; PFEFFERLE W
AN 2002-12993 BIOTECHDS
PI WO 2002018428 7 Mar 2002

L134 ANSWER 47 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Novel isolated cita encoding polynucleotide from coryneform bacteria, useful as a probe, and which, when present in attenuated form in L-lysine producing bacteria, results in increased fermentative production of L-lysine;

vector-mediated gene transfer and expression in host cell for strain improvement and L-amino acid preparation

AU MOECKEL B; FARWICK M; HERMANN T; MARX A; PFEFFERLE W
AN 2002-12966 BIOTECHDS
PI WO 2002018427 7 Mar 2002

L134 ANSWER 48 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Novel polynucleotide from Coryneform bacteria coding for lysR3 gene, useful as a probe for detecting DNA to isolate nucleic acids coding for transcription regulator lysR3 or for producing L-amino acids, e.g., L-lysine and L-valine;

bacterium recombinant protein gene, vector expression in host cell, for L-valine and L-lysine production

AU MOECKEL B; KREUTZER C
AN 2002-11054 BIOTECHDS
PI WO 2002012505 14 Feb 2002

L134 ANSWER 49 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Novel lysR2 gene of coryneform bacteria encoding LysR2 protein which is a transcription regulator, useful for fermentative production of L-lysine and L-valine and as a probe detecting polynucleotides encoding LysR2;

bacterium recombinant protein production vector expression in host cell, for L-amino acid, L-lysine, L-valine production

AU MOECKEL B; FARWICK M; HERMANN T; KREUTZER C; PFEFFERLE W
AN 2002-11053 BIOTECHDS
PI WO 2002012504 14 Feb 2002

L134 ANSWER 50 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Novel polynucleotide from Coryneform bacteria coding for lysR1 gene, useful as hybridization probe for detecting DNA coding for transcription

regulator lysR1;
vector plasmid pCR2.1lysR1int-mediated gene transfer and expression in
Escherichia coli and polymerase chain reaction for use in L-
**lysine and L-amino-acid
preparation**

AU MOECKEL B; FARWICK M; HERMANN T; KREUTZER C; PFEFFERLE W
AN 2002-11052 BIOTECHDS
PI WO 2002012295 **14 Feb 2002**

L134 ANSWER 51 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Novel polynucleotide from Coryneform bacteria coding for luxR gene,
useful as hybridization probe for detecting DNA to isolate nucleic acids,
polynucleotides or genes coding for transcription activator luxR;
recombinant protein production, vector expression in bacterium,
culture medium fermentation and transcription activator useful for
L-valine and L-lysine

AU MOECKEL B; KREUTZER C; BATHE B
AN 2002-11051 BIOTECHDS
PI WO 2002012291 **14 Feb 2002**

L134 ANSWER 52 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Novel methH gene from coryneform bacteria, useful for producing
L-methionine and as hybridization probes for identifying RNA, DNA or cDNA
to isolate nucleic acids or genes encoding homocysteine methyltransferase
II;

vector-mediated gene transfer and expression in host cell, Escherichia
coli fermentation broth, polymerase chain reaction and DNA primer for
use in L-methionine preparation useful for homocysteine
methyltransferase geneisolation

AU BATHE B; MOECKEL B; PFEFFERLE W; HUTHMACHER K; RUECKERT C; KALINOWSKI J;
PUEHLER A; BINDER M; GREISSINGER D; THIERBACH G
AN 2002-10701 BIOTECHDS
PI WO 2002010209 **7 Feb 2002**

L134 ANSWER 53 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Polynucleotide sequence encoding metE gene useful for preparation of
L-amino acids e.g. L-methionine and for the preparation of animal
foodstuffs additive from the fermentation broth;
vector-mediated gene transfer and expression in host cell for strain
improvement and **amino acid preparation**

AU BATHE B; MOECKEL B; PFEFFERLE W; HUTHMACHER K; RUECKERT C; KALINOWSKI J;
PUEHLER A; BINDER M; GREISSINGER D; THIERBACH G
AN 2002-11959 BIOTECHDS
PI WO 2002010208 **7 Feb 2002**

L134 ANSWER 54 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Polynucleotide sequence encoding metF gene useful for preparation of
L-amino acids e.g. L-methionine and for the preparation of animal
foodstuffs additive from the fermentation broth;
vector-mediated gene transfer and expression in bacterium host cell
for strain improvement and **amino acid
preparation**

AU BATHE B; MOECKEL B; PFEFFERLE W; HUTHMACHER K; BINDER M; GREISSINGER D;
THIERBACH G
AN 2002-11958 BIOTECHDS
PI WO 2002010206 **7 Feb 2002**

L134 ANSWER 55 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New coryneform bacterium in which the mdhA gene is attenuated, preferably
eliminated, useful for fermentative production of L-amino acids such as
L-lysine;
malate-dehydrogenase gene transfer in **Corynebacterium**
glutamicum, DNA array, DNA microarray and DNA chip useful for
medicine, pharmaceutical, food industry and feedstuff

AU MOLENAAR D; VAN DER REST M E; DRYSCH A
AN 2002-08500 BIOTECHDS
PI WO 2002002778 10 Jan 2002

L134 ANSWER 56 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Preparation of pantothenic acid, useful especially as animal feed
supplement, comprises fermenting coryneform bacteria that overexpress the
glyA gene;
vector-mediated gene transfer and expression in host cell for strain
improvement

AU DUSCH N; MARX A; PFEFFERLE W; THIERBACH G
AN 2003-06531 BIOTECHDS
PI EP 1247868 9 Oct 2002

L134 ANSWER 57 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New coryneform bacteria gene for subunit beta of RNA polymerase B, useful
when overexpressed for increasing fermentative production of amino acids,
also its mutants;

vector-mediated recombinant protein gene transfer and expression in
host cell for use in food and as a food-additive

AU MOECKEL B; BATHE B; HERMANN T; PFEFFERLE W; BINDER M
AN 2003-06013 BIOTECHDS
PI EP 1239040 11 Sep 2002

L134 ANSWER 58 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Novel Coryneform bacteria polynucleotide sequence of ilvE gene which
codes for transaminase E, the expression of which is enhanced,
particularly over expressed, for fermentative preparation of L-leucine,
L-valine;

recombinant transaminase-E production and gene transfer for strain
improvement for L-leucine and L-valine production by fermentation

AU BATHE B; BASTUCK C; TAUCH A; MCHARDY A
AN 2002-19152 BIOTECHDS
PI EP 1217069 26 Jun 2002

L134 ANSWER 59 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New L-lactate dehydrogenase gene from coryneform bacteria, useful, when
overexpressed, for increasing fermentative production of L-amino acid;
vector-mediated gene transfer and expression in host cell for strain
improvement and L-lysine preparation

AU FARWICK M; HUTHMACHER K; BATHE B; PFEFFERLE W
AN 2002-14541 BIOTECHDS
PI EP 1186657 13 Mar 2002

L134 ANSWER 60 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New nucleic acid encoding ribosomal protein 12 of coryneform bacteria,
useful, when overexpressed, for increasing fermentative amino
acid synthesis;

vector-mediated gene transfer and expression in host cell for strain
improvement and L-lysine preparation

AU MOECKEL B; BATHE B; HANS S; KREUTZER C; HERMANN T; PFEFFERLE W; BINDER M
AN 2003-04181 BIOTECHDS
PI DE 10162386 29 Aug 2002

L134 ANSWER 61 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New hemD and hemB genes and polypeptides of coryneform bacteria, useful,
when overexpressed, for increasing fermentative production of amino
acids;

plasmid-mediated uroporphyrinogen-III synthase and
delta-aminolevulinic acid dehydratase gene transfer and expression in
Corynebacterium glutamicum for L-lysine production

AU FARWICK M; HUTHMACHER K; SCHISCHKA N; MARX A; PFEFFERLE W
AN 2002-17445 BIOTECHDS
PI DE 10145585 2 May 2002

L134 ANSWER 62 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
 TI New tmk gene of Coryneform bacteria, useful when suppressed, for increasing fermentative production of L-amino acids, encodes a thymidylate kinase;
 L-lysine production by recombinant **Corynebacterium glutamicum** useful for food, medicine and pharmaceutical industry
 AU FARWICK M; HUTHMACHER K; MARX A; PFEFFERLE W
 AN 2002-15600 BIOTECHDS
 PI DE 10140095 **28 Mar 2002**

L134 ANSWER 63 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
 TI New cysD, N, K, E and H genes from coryneform bacteria, useful, when over expressed, for increasing fermentative production of L-amino acids;
 vector plasmid pEC-XK99E-mediated recombinant protein gene transfer and expression in Escherichia coli for use in **L-amino acid preparation** and medicine, pharmaceutical and food industries
 AU FARWICK M; HUTHMACHER K; PFEFFERLE W; SCHISCHKA N; BATHE B
 AN 2002-16465 BIOTECHDS
 PI DE 10136986 **21 Mar 2002**

L134 ANSWER 64 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
 TI RodA genes from coryneform bacteria, useful, when overexpressed, for increasing fermentative production of L-amino acid, especially L-lysine;
 vector plasmid pEC-XK99E-mediated recombinant protein gene transfer and expression in Escherichia coli for use in **L-amino acid preparation** and medicine, pharmaceutical and food industries
 AU FARWICK M; HUTHMACHER K; BATHE B; PFEFFERLE W
 AN 2002-16464 BIOTECHDS
 PI DE 10132947 **21 Mar 2002**

L134 ANSWER 65 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
 TI New ftsX gene from coryneform bacteria, useful, when over expressed, for increasing fermentative production of L-amino acid, especially L-lysine;
 vector plasmid pEC-XK99E-mediated recombinant protein gene transfer and expression in Escherichia coli for use in **L-amino acid preparation**, medicine, pharmaceutical and food industries
 AU FARWICK M; HUTHMACHER K; BREHME J; RIEPING M; PFEFFERLE W
 AN 2002-16463 BIOTECHDS
 PI DE 10132176 **21 Mar 2002**

L134 ANSWER 66 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
 TI New metD gene of coryneform bacteria, useful when suppressed, for increasing fermentative production of L-amino acids, e.g. for animal nutrition;
 Corynebacterium glutamicum fermentation for methionine and lysine production
 AU REY D; RUECKERT C; BATHE B; HUTHMACHER K; PFEFFERLE W; PUEHLER A; KALINOWSKI J
 AN 2003-07731 BIOTECHDS
 PI DE 10126164 **5 Dec 2002**

L134 ANSWER 67 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
 TI New polynucleotide representing mtrA and B genes of coryneform bacteria, useful, when suppressed, for increasing fermentative production of amino acids;
 vector-mediated recombinant protein gene transfer and expression in host cell and fermentation for use in medicine, pharmaceutical and food industry, as feedstuff, DNA primer, DNA probe, DNA microarray and DNA chip
 AN 2002-18760 BIOTECHDS

PI DE 10125089 23 May 2002

L134 ANSWER 68 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New ccpA2 gene from coryneform bacteria, useful, when suppressed, for increasing fermentative production of L-amino acids, particularly lysine; metabolic engineering for L-lysine production in

Corynebacterium glutamicum

AU MOECKEL B; KREUTZER C; HERMANN T; FARWICK M; MARX A; PFEFFERLE W

AN 2002-16217 BIOTECHDS

PI DE 10123071 7 Mar 2002

L134 ANSWER 69 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Improved production of L-amino acids in coryneform bacteria, useful particularly in animal nutrition, by reducing activity of malate-quinone oxidoreductase;

mutant bacterium construction for strain improvement and **amino acid preparation**

AU FARWICK M; BATHE B; HERMANN T; MARX A; PFEFFERLE W

AN 2003-06530 BIOTECHDS

PI DE 10117816 17 Oct 2002

L134 ANSWER 70 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Fermentative production of D-pantothenic acid (I), useful e.g. in animal nutrition, from coryneform bacteria with reduced activity of the **pyruvate oxidase** gene;

vitamin production by *Brevibacterium lactofermentum*

AU DUSCH N; HERRMANN T; THIERBACH G

AN 2002-16216 BIOTECHDS

PI DE 10117085 11 Apr 2002

L134 ANSWER 71 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Fermentative production of L-amino acids, useful especially in animal nutrition, by fermenting *Coryneform* bacteria in which fructose-bisphosphate aldolase gene is weakened;

amino acid production via bacterium culture medium fermentation for food and pharmaceutical industry

AU FARWICK M; BATHE B; HERMANN T; MARX A

AN 2003-03387 BIOTECHDS

PI DE 10113011 19 Sep 2002

L134 ANSWER 72 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New isolated polynucleotide from coryneform bacteria, useful for increasing production of amino acids, comprises extended genes for 1- or 6- phosphofructokinase;

lysine production by **Corynebacterium glutamicum**

AU FARWICK M; BATHE B; BREHME J; HUTHMACHER K

AN 2003-07033 BIOTECHDS

PI DE 10112992 26 Sep 2002

L134 ANSWER 73 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New dep34 gene from coryneform bacteria, useful, when inactivated, for increasing fermentative production of L-amino acid, especially L-lysine; plasmid-mediated inactivated mutant gene transfer and expression in **Corynebacterium glutamicum** for use in food and pharmaceutical industry

AU FARWICK M; HUTHMACHER K; HERMANN T; BATHE B; PFEFFERLE W

AN 2002-14941 BIOTECHDS

PI DE 10112429 21 Mar 2002

L134 ANSWER 74 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New menE gene of coryneform bacteria, useful when suppressed for increasing fermentative production of L-amino acids, encodes an O-succinylbenzoic acid CoA-ligase; vector-mediated gene transfer and expression in host cell for strain

improvement and **L-lysine preparation**

AU FARWICK M; HUTHMACHER K; PFEFFERLE W; MARX A
AN 2002-15772 BIOTECHDS
PI DE 10112106 **28 Mar 2002**

L134 ANSWER 75 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New trehalose-6-phosphate synthase gene from coryneform bacteria, useful,
when suppressed for increasing fermentative production of amino acids,
especially lysine;
vector-mediated gene transfer and expression in host cell for strain
improvement and **amino acid preparation**

AU HERMANN T; WOLF A; MORBACH S; KRAEMER R
AN 2003-01018 BIOTECHDS
PI DE 10110760 **1 Aug 2002**

L134 ANSWER 76 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI Fermentative production of L-amino acids, especially lysine or valine, by
fermenting Coryneform bacteria in which the nadA and/or nadC gene is
weakened;
vector expression in bacterium host cell, fermentation and mutation
for amino acid production and food

AU MOECKEL B; HERMANN T; PFEFFERLE W
AN 2003-02411 BIOTECHDS
PI DE 10110344 **16 May 2002**

L134 ANSWER 77 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New oxyR gene from coryneform bacteria, useful, when overexpressed, for
increasing fermentative production of L-amino acids, particularly lysine;
vector plasmid pT-oxyRexp-mediated recombinant protein gene transfer
and expression in host cell and fermentation for use in L-
amino acid preparation and in medicine,
pharmaceutical and food industries

AU MARX A; FARWICK M; HERMANN T; SCHISCHKA N; BATHE B
AN 2002-15933 BIOTECHDS
PI DE 10110053 **7 Mar 2002**

L134 ANSWER 78 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New ccpA1 gene from coryneform bacteria, useful, when suppressed, for
increasing fermentative production of L-amino acids, particularly lysine;
involving fermentation and vector plasmid pCR2.1-mediated gene
transfer for expression in Escherichia coli for use in L-**amino
acid preparation**, medicine, pharmaceutical and food
industries

AU MOECKEL B; KREUTZER C
AN 2002-15467 BIOTECHDS
PI DE 10110052 **7 Mar 2002**

L134 ANSWER 79 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New pepC gene of Coryneform bacteria, useful when suppressed, for
increasing fermentative production of L-amino acids, encodes an
aminopeptidase I;
vector-mediated gene transfer and expression in host cell for strain
improvement and **L-lysine preparation**

AU FARWICK M; HUTHMACHER K; BATHE B; RIEPING M; PFEFFERLE W
AN 2002-15771 BIOTECHDS
PI DE 10108828 **28 Mar 2002**

L134 ANSWER 80 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New polynucleotide encoding the CysQ transporter of coryneform bacteria,
useful, when over expressed, for increasing fermentative production of
amino acids;
vector-mediated recombinant protein gene transfer and expression in
host cell and fermentation for use in L-**amino acid
preparation**

AU FARWICK M; HUTHMACHER K; BATHE B; PFEFFERLE W
AN 2002-18235 BIOTECHDS
PI DE 10057801 23 May 2002

L134 ANSWER 81 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New dps gene of coryneform bacteria, useful when overexpressed, for
increasing fermentative production of L-amino acids, encodes a
DNA-protection protein;
vector-mediated gene transfer and expression in host cell for strain
improvement and L-lysine preparation

AU BATHE B; KREUTZER C; RIEPING M; MARX A; FARWICK M; PFEFFERLE W
AN 2002-15769 BIOTECHDS
PI DE 10046623 28 Mar 2002

L134 ANSWER 82 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New polynucleotide from coryneform bacteria, useful when overexpressed
for increasing fermentative amino acid production, encodes sigma factor
D;
vector-mediated gene transfer and expression in host cell for strain
improvement and L-lysine preparation

AU BATHE B; KREUTZER C; MARTENS M; FARWICK M; HERRMANN T; PFEFFERLE W
AN 2002-15768 BIOTECHDS
PI DE 10043331 14 Mar 2002

L134 ANSWER 83 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New polynucleotide from coryneform bacteria, useful when weakened, for
increasing fermentative amino acid production, encodes lipoic acid
synthetase;
vector-mediated gene transfer and expression in host cell for strain
improvement and L-lysine preparation

AU MOECKEL B; PFEFFERLE W; BUCHHOLZ M
AN 2002-15767 BIOTECHDS
PI DE 10042742 14 Mar 2002

L134 ANSWER 84 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New polynucleotide from coryneform bacteria, useful, when weakened, for
increasing fermentative amino acid production, encodes lipoprotein ligase
B;
vector-mediated gene transfer and expression in host cell for strain
improvement and L-lysine preparation

AU MOECKEL B; PFEFFERLE W; BUCHHOLZ M
AN 2002-15766 BIOTECHDS
PI DE 10042739 14 Mar 2002

L134 ANSWER 85 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New cstA gene from coryneform bacteria, useful, when overexpressed, for
increasing fermentative production of L-amino acids e.g. lysine and as
hybridization probe;
carbon starvation protein-A cstA gene overexpression via vector
expression in host cell for L-lysine production

AU MOECKEL B; MARX A; HERMANN T; FARWICK M; PFEFFERLE W
AN 2002-14317 BIOTECHDS
PI DE 10042051 7 Mar 2002

L134 ANSWER 86 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN
TI Cloning of *Corynebacterium* glutamicum metD gene encoding a
transcription repressor for L-methionine biosynthesis enzymes and use
thereof in related fermentation

SO PCT Int. Appl., 52 pp.
CODEN: PIXXD2

IN Rey, Daniel; Rueckert, Christian; Kalinowski, Joern; Puehler, Alfred;
Bathe, Brigitte; Huthmacher, Klaus; Pfefferle, Walter
AN 2002:927599 HCAPLUS
DN 138:12053

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002097096	A2	20021205	WO 2002-EP5152	20020510 <--
	WO 2002097096	A3	20031211		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	DE 10126164	A1	20021205	DE 2001-10126164	20010530 <--
	EP 1390504	A2	20040225	EP 2002-740582	20020510
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
	US 2003092026	A1	20030515	US 2002-156856	20020530

L134 ANSWER 87 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Production of L-amino acids Enterobacteriaceae strains containing an attenuated aceA gene

SO PCT Int. Appl., 34 pp.

CODEN: PIXXD2

IN Rieping, Mechthild; Hermann, Thomas

AN 2002:793827 HCAPLUS

DN 137:309605

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002081722	A2	20021017	WO 2002-EP2421	20020306 <--
	WO 2002081722	A3	20031030		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	DE 10116518	A1	20021017	DE 2001-10116518	20010403 <--
	EP 1383905	A2	20040128	EP 2002-702397	20020306
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
	US 2003049803	A1	20030313	US 2002-114073	20020403
	US 2003054503	A1	20030320	US 2002-114043	20020403
	US 2003059903	A1	20030327	US 2002-114048	20020403

L134 ANSWER 88 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Production of L-amino acids with Enterobacteriaceae strains containing an attenuated dgsA gene

SO PCT Int. Appl., 33 pp.

CODEN: PIXXD2

IN Rieping, Mechthild; Hermann, Thomas

AN 2002:793826 HCAPLUS

DN 137:309604

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002081721	A2	20021017	WO 2002-EP2419	20020306 <--
	WO 2002081721	A3	20031030		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,			

GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
 LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
 PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
 UA, UG, UZ, VN, YU, ZA, ZM, ZW
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
 KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB,
 GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA,
 GN, GQ, GW, ML, MR, NE, SN, TD, TG

DE 10116518 A1 20021017 DE 2001-10116518 20010403 <--
 EP 1383906 A2 20040128 EP 2002-719983 20020306
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
 US 2003049803 A1 20030313 US 2002-114073 20020403
 US 2003054503 A1 20030320 US 2002-114043 20020403
 US 2003059903 A1 20030327 US 2002-114048 20020403

L134 ANSWER 89 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Deletion of E. coli fruR gene encoding ribonucleic acid formation factors
 for L-Threonine biosynthesis

SO PCT Int. Appl., 33 pp.

CODEN: PIXXD2

IN Rieping, Mechthild; Hermann, Thomas

AN 2002:793808 HCAPLUS

DN 137:305745

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI WO 2002081698	A2	20021017	WO 2002-EP2420	20020306 <--
WO 2002081698	A3	20031030		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
 CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
 GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
 LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
 PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
 UA, UG, UZ, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
 KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB,
 GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA,
 GN, GQ, GW, ML, MR, NE, SN, TD, TG

DE 10116518	A1	20021017	DE 2001-10116518	20010403 <--
EP 1373541	A2	20040102	EP 2002-759768	20020306
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2003049803	A1	20030313	US 2002-114073	20020403
US 2003054503	A1	20030320	US 2002-114043	20020403
US 2003059903	A1	20030327	US 2002-114048	20020403

L134 ANSWER 90 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Cloning of 1- and 6-phosphofructokinase genes from Coryneform bacteria and
 their attenuation for increasing yields of L-lysine in fermentation

SO PCT Int. Appl., 47 pp.

CODEN: PIXXD2

IN Farwick, Mike; Bathe, Brigitte; Brehme, Jennifer; Huthmacher, Klaus

AN 2002:736394 HCAPLUS

DN 137:261991

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI WO 2002074944	A1	20020926	WO 2002-EP2830	20020314 <--
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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
 CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
 GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
 LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
 PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
 UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,

CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
 DE 10112992 A1 20020926 DE 2001-10112992 20010317 <--
 US 2003092137 A1 20030515 US 2002-98626 20020318

L134 ANSWER 91 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Protein and DNA sequence of **Corynebacterium** ribosomal protein
 S12 gene rpsL and its use in amino acid production with recombinant coryneform
 bacteria

SO PCT Int. Appl., 56 pp.
 CODEN: PIXXD2

IN Moeckel, Bettina; Bathe, Brigitte; Hans, Stephan; Kreutzer, Caroline;
 Hermann, Thomas; Pfefferle, Walter; Binder, Michael

AN 2002:658267 HCAPLUS

DN 137:212013

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002066651	A2	20020829	WO 2002-EP573	20020122 <--
	WO 2002066651	A3	20030109		
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				
	CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,				
	GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,				
	LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,				
	PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,				
	UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,				
	CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,				
	BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	DE 10162386	A1	20020829	DE 2001-10162386	20011219 <--
	EP 1360298	A2	20031112	EP 2002-716672	20020122
	R:				
	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				
	IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	BR 2002007284	A	20040210	BR 2002-7284	20020122
	US 2002155557	A1	20021024	US 2002-75460	20020215 <--

L134 ANSWER 92 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Sequences of hemD and hmB gene from **corynebacteria** and use
 thereof in production of L-lysine

SO PCT Int. Appl., 49 pp.
 CODEN: PIXXD2

IN Farwick, Mike; Huthmacher, Klaus; Pfefferle, Walter; Schischka, Natalie;
 Marx, Achim

AN 2002:332215 HCAPLUS

DN 136:354247

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002034775	A2	20020502	WO 2001-EP11705	20011010 <--
	WO 2002034775	A3	20020919		
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				
	CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,				
	GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,				
	LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL,				
	PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG,				
	UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,				
	DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,				
	BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	DE 10145585	A1	20020502	DE 2001-10145585	20010915 <--
	AU 2002018223	A5	20020506	AU 2002-18223	20011010 <--

L134 ANSWER 93 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Materials and methods to modulate ligand binding/enzymic activity of
 α/β proteins containing an allosteric regulatory site

SO PCT Int. Appl., 163 pp.

CODEN: PIXXD2
IN Stauton, Donald E.
AN 2002:293978 HCAPLUS
DN 136:337341

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002031511	A2	20020418	WO 2001-US32047	20011012 <--
	WO 2002031511	A3	20030313		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	CA 2425581	AA	20020418	CA 2001-2425581	20011012 <--
	AU 2002013196	A5	20020422	AU 2002-13196	20011012 <--
	US 2003088061	A1	20030508	US 2001-976935	20011012
	EP 1325341	A2	20030709	EP 2001-981560	20011012
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
	JP 2004511496	T2	20040415	JP 2002-534845	20011012

L134 ANSWER 94 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN
TI Process for the fermentative preparation of D-pantothenic acid using coryneform bacteria with **poxb** gene being eliminated
SO PCT Int. Appl., 46 pp.

CODEN: PIXXD2
IN Dusch, Nicole; Hermann, Thomas; Thierbach, Georg
AN 2002:276126 HCAPLUS
DN 136:308622

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002029020	A1	20020411	WO 2001-EP10212	20010905 <--
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	DE 10117085	A1	20020411	DE 2001-10117085	20010406 <--
	AU 2001091825	A5	20020415	AU 2001-91825	20010905 <--
	EP 1320586	A1	20030625	EP 2001-972003	20010905
	EP 1320586	B1	20040825		
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
	AT 274575	E	20040915	AT 2001-972003	20010905
	US 2002150999	A1	20021017	US 2001-965825	20011001 <--

L134 ANSWER 95 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN
TI Coryneform bacteria menE gene encoding o-succinylbenzoic acid coA ligase and a method for fermentative preparation of amino acids in bacteria in which the menE gene is attenuated

SO PCT Int. Appl., 43 pp.
CODEN: PIXXD2
IN Farwick, Mike; Huthmacher, Klaus; Pfefferle, Walter; Marx, Achim
AN 2002:240996 HCAPLUS
DN 136:258366

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI WO 2002024937 A1 20020328 WO 2001-EP9221 20010809 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ,
VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
DE 10112106 A1 20020328 DE 2001-10112106 20010314 <--
US 2002102663 A1 20020801 US 2001-834722 20010416 <--
AU 2001079811 A5 20020402 AU 2001-79811 20010809 <--
EP 1319084 A1 20030618 EP 2001-958064 20010809
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

L134 ANSWER 96 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN
TI Sequence of pepC gene from **corynebacteria** and use thereof in
synthesis of L-lysine
SO PCT Int. Appl., 43 pp.
CODEN: PIXXD2

IN Farwick, Mike; Huthmacher, Klaus; Bathe, Brigitte; Rieping, Mechthild;
Pfefferle, Walter
AN 2002:240987 HCAPLUS
DN 136:278224

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002024928	A1	20020328	WO 2001-EP8708	20010727 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10108828	A1	20020328	DE 2001-10108828	20010223 <--
US 2002098554	A1	20020725	US 2001-804073	20010313 <--
AU 2001089765	A5	20020402	AU 2001-89765	20010727 <--

L134 ANSWER 97 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN
TI Sequences of dps gene from **corynebacteria** and use thereof in
production of L-lysine
SO PCT Int. Appl., 39 pp.
CODEN: PIXXD2

IN Bathe, Brigitte; Kreutzer, Caroline; Rieping, Mechthild; Marx, Achim;
Farwick, Mike; Pfefferle, Walter
AN 2002:240813 HCAPLUS
DN 136:278218

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002024737	A1	20020328	WO 2001-EP10523	20010912 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

DE 10046623	A1	20020328	DE 2000-10046623	20000920 <--
AU 2002012232	A5	20020402	AU 2002-12232	20010912 <--
EP 1319019	A1	20030618	EP 2001-980373	20010912
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2002106760	A1	20020808	US 2001-955315	20010919 <--

L134 ANSWER 98 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Sequence of tmk gene from **corynebacteria** and use thereof in
synthesis of L-lysine

SO PCT Int. Appl., 43 pp.
CODEN: PIXXD2

IN Farwick, Mike; Huthmacher, Klaus; Marx, Achim; Pfefferle, Walter

AN 2002:240792 HCAPLUS

DN 136:278217

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002024716	A2	20020328	WO 2001-EP10268	20010906 <--
WO 2002024716	A3	20021205		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10140095	A1	20020328	DE 2001-10140095	20010816 <--
AU 2002014966	A5	20020402	AU 2002-14966	20010906 <--
EP 1319077	A2	20030618	EP 2001-983465	20010906
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2002137065	A1	20020926	US 2001-955203	20010919 <--

L134 ANSWER 99 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Sequence of dep34 gene from **corynebacteria** and use thereof in
synthesis of L-lysine

SO PCT Int. Appl., 42 pp.
CODEN: PIXXD2

IN Farwick, Mike; Huthmacher, Klaus; Pfefferle, Walter; Hermann, Thomas;
Bathe, Brigitte

AN 2002:220807 HCAPLUS

DN 136:261909

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002022843	A2	20020321	WO 2001-EP9313	20010811 <--
WO 2002022843	A3	20020711		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10112429	A1	20020321	DE 2001-10112429	20010315 <--
AU 2002019032	A5	20020326	AU 2002-19032	20010811 <--
EP 1315815	A2	20030604	EP 2001-984655	20010811
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2002106757	A1	20020808	US 2001-946763	20010906 <--

L134 ANSWER 100 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN
 TI Sequences of ftsX gene from **corynebacteria** and use thereof in
 production of L-lysine
 SO PCT Int. Appl., 46 pp.
 CODEN: PIXXD2
 IN Farwick, Mike; Huthmacher, Klaus; Pfefferle, Walter; Brehme, Jennifer;
 Rieping, Mechthild
 AN 2002:220644 HCAPLUS
 DN 136:261902

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002022670	A1	20020321	WO 2001-EP9375	20010814 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10132176	A1	20020321	DE 2001-10132176	20010703 <--
AU 2001087682	A5	20020326	AU 2001-87682	20010814 <--
US 2002107377	A1	20020808	US 2001-946769	20010906 <--

L134 ANSWER 101 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN
 TI Sequences of rodA gene from **corynebacteria** and use thereof in
 production of L-lysine
 SO PCT Int. Appl., 46 pp.
 CODEN: PIXXD2
 IN Farwick, Mike; Huthmacher, Klaus; Pfefferle, Walter; Bathe, Brigitte
 AN 2002:220642 HCAPLUS
 DN 136:261900

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002022668	A1	20020321	WO 2001-EP9097	20010807 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10132947	A1	20020321	DE 2001-10132947	20010706 <--
AU 2001085878	A5	20020326	AU 2001-85878	20010807 <--
US 2002051993	A1	20020502	US 2001-950071	20010912 <--
US 6777206	B2	20040817		

L134 ANSWER 102 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN
 TI Sequence of cstA gene from **corynebacteria** and use thereof in
synthesis of L-lysine
 SO PCT Int. Appl., 53 pp.
 CODEN: PIXXD2
 IN Moeckel, Bettina; Marx, Achim; Pfefferle, Walter; Farwick, Mike; Hermann,
 Thomas
 AN 2002:172099 HCAPLUS
 DN 136:231336

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002018597	A1	20020307	WO 2001-EP8601	20010725 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,				

GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
 LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
 RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ,
 VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
 BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

DE 10042051 A1 20020307 DE 2000-10042051 20000826 <--
 AU 2001082022 A5 20020313 AU 2001-82022 20010725 <--
 EP 1311683 A1 20030521 EP 2001-960554 20010725
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

US 2002137912 A1 20020926 US 2001-935799 20010824 <--

L134 ANSWER 103 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Sequence of sigC gene from **corynebacteria** and use thereof in
synthesis of L-lysine

SO PCT Int. Appl., 40 pp.

CODEN: PIXXD2

IN Bathe, Brigitte; Hans, Stephan; Farwick, Mike; Hermann, Thomas; Pfefferle,
 Walter

AN 2002:172091 HCAPLUS

DN 136:231335

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002018589	A2	20020307	WO 2001-EP9163	20010808 <--
WO 2002018589	A3	20020815		
W:				
AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,				
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,				
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,				
RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ,				
VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,				
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,				
BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10133426	A1	20020314	DE 2001-10133426	20010710 <--
AU 2001093740	A5	20020313	AU 2001-93740	20010808 <--
EP 1320543	A2	20030625	EP 2001-974138	20010808
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2002146782	A1	20021010	US 2001-941936	20010830 <--

L134 ANSWER 104 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Sequence of oxyR gene from **corynebacteria** and use thereof in
synthesis of L-lysine

SO PCT Int. Appl., 50 pp.

CODEN: PIXXD2

IN Marx, Achim; Farwick, Mike; Hermann, Thomas; Schischka, Natalie; Bathe,
 Brigitte

AN 2002:171943 HCAPLUS

DN 136:231334

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002018431	A1	20020307	WO 2001-EP8388	20010720 <--
W:				
AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,				
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,				
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,				
RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ,				
VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,				
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,				
BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

DE 10110053	A1	20020307	DE 2001-10110053	20010302 <--
AU 2001089706	A5	20020313	AU 2001-89706	20010720 <--
EP 1313758	A1	20030528	EP 2001-969448	20010720
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2002064839	A1	20020530	US 2001-938641	20010827 <--

L134 ANSWER 105 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Sequence of ccpA2 gene from **corynebacteria** and use thereof in
synthesis of L-lysine

SO PCT Int. Appl., 43 pp.

CODEN: PIXXD2

IN Moeckel, Bettina; Kreutzer, Caroline; Hermann, Thomas; Farwick, Mike;
Marx, Achim; Pfefferle, Walter

AN 2002:171941 HCAPLUS

DN 136:231332

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI WO 2002018429	A1	20020307	WO 2001-EP7386	20010628 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
DE 10123071	A1	20020307	DE 2001-10123071	20010511 <--
AU 2001091658	A5	20020313	AU 2001-91658	20010628 <--
EP 1313759	A1	20030528	EP 2001-971740	20010628
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2002068336	A1	20020606	US 2001-938642	20010827 <--
US 6689586	B2	20040210		
US 2004209285	A1	20041021	US 2003-724827	20031202

L134 ANSWER 106 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Sequence of ccpA1 gene from **corynebacteria** and use thereof in
synthesis of L-lysine

SO PCT Int. Appl., 38 pp.

CODEN: PIXXD2

IN Moeckel, Bettina; Kreutzer, Caroline

AN 2002:171931 HCAPLUS

DN 136:231329

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
PI WO 2002018419	A2	20020307	WO 2001-EP8356	20010719 <--
WO 2002018419	A3	20021031		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10110052	A1	20020307	DE 2001-10110052	20010302 <--
AU 2002012114	A5	20020313	AU 2002-12114	20010719 <--
EP 1311685	A2	20030521	EP 2001-980214	20010719
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2002151001	A1	20021017	US 2001-938540	20010827 <--

L134 ANSWER 107 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN
 TI Use of **Corynebacterium** glutamicum pgsA2 gene encoding
 CDP-diacylglycerol-glycerol-3-phosphate 3-phosphatidyltransferase in
 lysine fermentation
 SO U.S. Pat. Appl. Publ., 13 pp., Cont.-in-part of U.S. Ser. No. 577,855,
 abandoned.
 CODEN: USXXCO
 IN Nampoothiri, K. Madhavan; Mockel, Bettina; Pfefferle, Walter; Eggeling,
 Lothar; Sahm, Hermann
 AN 2002:814753 HCAPLUS
 DN 137:321373

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002155555	A1	20021024	US 2001-855835	20010516 <--
	DE 10021829	A1	20011108	DE 2000-10021829	20000504 <--

L134 ANSWER 108 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN
 TI Protein and DNA sequence of **Corynebacterium** ribosomal protein
 S12 gene rpsL and its use in amino acid production with recombinant coryneform
 bacteria
 SO U.S. Pat. Appl. Publ., 21 pp.
 CODEN: USXXCO
 IN Moeckel, Bettina; Bathe, Brigitte; Stephan, Hans; Kreutzer, Caroline;
 Hermann, Thomas; Pfefferle, Walter; Binder, Michael
 AN 2002:658671 HCAPLUS
 DN 137:196763

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002119549	A1	20020829	US 2001-984711	20011031 <--

L134 ANSWER 109 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN
 TI Sequences of **Corynebacterium** glutamicum rpoB gene encoding
 β subunit of RNA polymerase B for fermentation of L-lysine
 SO U.S. Pat. Appl. Publ., 36 pp.
 CODEN: USXXCO
 IN Moeckel, Bettina; Bathe, Brigitte; Hermann, Thomas; Pfefferle, Walter;
 Binder, Michael
 AN 2002:658668 HCAPLUS
 DN 137:196689

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002119537	A1	20020829	US 2001-887052	20010625 <--
	US 6783967	B2	20040831		
	US 2003166884	A1	20030904	US 2002-76406	20020219
	US 2004180359	A1	20040916	US 2003-706082	20031113

L134 ANSWER 110 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN
 TI Use of ptsH gene of **Corynebacterium** glutamicum for L-
lysine biosynthesis
 SO U.S. Pat. Appl. Publ., 15 pp., Cont.-in-part of U.S. Ser. No. 755,187.
 CODEN: USXXCO
 IN Farwick, Mike; Mockel, Bettina; Pfefferle, Walter
 AN 2002:522540 HCAPLUS
 DN 137:89444

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002090700	A1	20020711	US 2001-819930	20010329 <--
	US 2003224499	A9	20031204		
	US 6818432	B2	20041116		
	DE 10001101	A1	20010719	DE 2000-10001101	20000113 <--
	US 2002094554	A1	20020718	US 2001-755187	20010108 <--
	US 2004005675	A9	20040108		

L134 ANSWER 111 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN
 TI Nucleotide sequences coding for the genes sucC and sucD
 SO U.S. Pat. Appl. Publ., 19 pp., Cont.-in-part of U.S. Ser. No. 728,498.
 CODEN: USXXCO
 IN Mockel, Bettina; Pfefferle, Walter; Marx, Achim
 AN 2002:450259 HCAPLUS
 DN 137:29041

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002072099	A1	20020613	US 2001-838564	20010420 <--
	DE 19956686	A1	20010531	DE 1999-19956686	19991125 <--
	US 6623946	B1	20030923	US 2000-728498	20001127
	US 2004152166	A1	20040805	US 2004-801586	20040317

L134 ANSWER 112 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN
 TI Sequences of fadD15 gene from **corynebacteria** and use thereof in production of L-lysine
 SO U.S. Pat. Appl. Publ., 17 pp., Cont.-in-part of U.S. Ser. No. 577,848, abandoned.
 CODEN: USXXCO
 IN Nampoothiri, K. Madhavan; Mockel, Bettina; Pfefferle, Walter; Eggeling, Lothar; Sahm, Hermann
 AN 2002:276480 HCAPLUS
 DN 136:308623

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002042107	A1	20020411	US 2001-855750	20010516 <--
	DE 10021831	A1	20011108	DE 2000-10021831	20000504 <--

L134 ANSWER 113 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN
 TI Fermentative production of L-amino acids with **poxB** mutants of Enterobacteriaceae
 SO Ger. Offen., 22 pp.
 CODEN: GWXXBX
 IN Thierbach, Georg; Rieping, Mechthild
 AN 2002:349112 HCAPLUS
 DN 136:354249

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10112107	A1	20020508	DE 2001-10112107	20010314 <--
	WO 2002036797	A2	20020510	WO 2001-EP11228	20010928 <--
	WO 2002036797	A3	20021114		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG AU 2002015910 A5 20020515 AU 2002-15910 20010928 <-- EP 1330526 A2 20030730 EP 2001-992788 20010928 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR US 2003017554 A1 20030123 US 2002-76416 20020219				

L134 ANSWER 114 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
 TI New polynucleotides encoding glbO gene, useful as a primer for producing DNA of genes which code for the gene product of glbO, or as hybridization probes;
 vector-mediated gene transfer, expression in host cell, DNA probe and DNA primer for strain improvement
 AU MOECKEL B; MARX A; PFEFFERLE W

AN 2002-09727 BIOTECHDS
PI WO 2001094569 13 Dec 2001

L134 ANSWER 115 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
TI New Coryneform glutamicum **poxB pyruvate-oxidase** polynucleotide useful for insertional mutation, producing strains with increased production of amino acids;
vector pCR2.1poxBint expression in **Corynebacterium** glutamicum useful for fermentative production of L-lysine
AU Moeckel B; Weissenborn A; Pfefferle W; Puehler A; Kalinowski J; Bathe B; Dusch N
AN 2001-10817 BIOTECHDS
PI EP 1096013 2 May 2001

L134 ANSWER 116 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 83
TI Process for the fermentative preparation of L-amino acids in coryneform bacteria with amplification of the gnd gene
SO PCT Int. Appl., 59 pp.
CODEN: PIXXD2
IN Dunicau, L. K.; McCormack, Ashling; Stapelton, Cliona; Burke, Kevin; Moeckel, Bettina
AN 2001:713591 HCAPLUS
DN 135:268190

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001071012	A1	20010927	WO 2000-EP6299	20000705 <--
W: AU, BR, CA, CN, HU, ID, JP, KR, MX, PL, RU, SK, UA, ZA				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2374265	AA	20010927	CA 2000-2374265	20000705 <--
EP 1179076	A1	20020213	EP 2000-951336	20000705 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
BR 2000010817	A	20020305	BR 2000-10817	20000705 <--

L134 ANSWER 117 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 84
TI Process for the fermentative preparation of L-amino acids with amplification of the zwf gene
SO PCT Int. Appl., 63 pp.
CODEN: PIXXD2
IN Burke, Kevin; Sahm, Hermann; Eggeling, Lothar; Moritz, Bernd; Dunican, L. K.; McCormack, Ashling; Stapelton, Cliona; Moeckel, Bettina; Thierbach, Georg
AN 2001:713576 HCAPLUS
DN 135:256200

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001070995	A1	20010927	WO 2000-EP6303	20000705 <--
W: AU, BR, CA, CN, HU, ID, JP, KR, MX, PL, RU, SK, UA, ZA				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2374261	AA	20010927	CA 2000-2374261	20000705 <--
EP 1179073	A1	20020213	EP 2000-956164	20000705 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
BR 2000011283	A	20020305	BR 2000-11283	20000705 <--

L134 ANSWER 118 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 85
TI Process for the fermentative preparation of L-amino acids with amplification of the tkt gene
SO PCT Int. Appl., 53 pp.
CODEN: PIXXD2
IN Dunican, L. K.; McCormack, Ashling; Stapelton, Cliona; Burke, Kevin; Moeckel, Bettina; Thierbach, Georg

AN 2001:693552 HCAPLUS
DN 135:252777

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001068894	A1	20010920	WO 2000-EP6305	20000705 <--
	W: AU, BR, CA, CN, HU, ID, JP, KR, MX, PL, RU, SK, UA, ZA				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	CA 2374012	AA	20010920	CA 2000-2374012	20000705 <--
	BR 2000010713	A	20020213	BR 2000-10713	20000705 <--
	EP 1179084	A1	20020213	EP 2000-945875	20000705 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

L134 ANSWER 119 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 86
TI Sequences of Coryneform bacteria tal gene and uses thereof in fermentative preparation of L-amino acids
SO PCT Int. Appl., 47 pp.
CODEN: PIXXD2

IN Dunican, L. K.; McCormack, Ashling; Stapelton, Cliona; Burke, Kevin; Mockel, Bettina

AN 2001:50828 HCAPLUS
DN 134:111274

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001004325	A1	20010118	WO 2000-EP6304	20000705 <--
	W: AU, BR, CA, CN, HU, ID, JP, KR, MX, PL, RU, SK, UA, ZA				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 6797509	B1	20040928	US 2000-531266	20000320
	CA 2348448	AA	20010118	CA 2000-2348448	20000705 <--
	EP 1109915	A1	20010627	EP 2000-956165	20000705 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	BR 2000006915	A	20010731	BR 2000-6915	20000705 <--
	AU 768599	B2	20031218	AU 2000-68220	20000705
	ZA 2001001703	A	20020528	ZA 2001-1703	20010228 <--
	ZA 2001001678	A	20020815	ZA 2001-1678	20010228 <--
	US 2004214219	A1	20041028	US 2004-847610	20040518

L134 ANSWER 120 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 87

TI Sequences of Coryneform bacteria opcA gene and uses thereof in fermentative preparation of L-amino acids

SO PCT Int. Appl., 75 pp.
CODEN: PIXXD2

IN Dunican, L. K.; McCormack, Ashling; Stapelton, Cliona; Burke, Kevin; Moritz, Bernd; Eggeling, Lothar; Sahm, Hermann; Mockel, Bettina; Weissenborn, Anke

AN 2001:50825 HCAPLUS
DN 134:111273

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001004322	A1	20010118	WO 2000-EP6300	20000705 <--
	WO 2001004322	C2	20020912		
	W: AU, BR, CA, CN, HU, ID, JP, KR, MX, PL, RU, SK, UA, ZA				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	CA 2348365	AA	20010118	CA 2000-2348365	20000705 <--
	BR 2000006909	A	20010612	BR 2000-6909	20000705 <--
	EP 1109913	A1	20010627	EP 2000-945874	20000705 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	AU 772563	B2	20040429	AU 2000-59821	20000705
	ZA 2001001703	A	20020528	ZA 2001-1703	20010228 <--

ZA 2001001678 A 20020815 ZA 2001-1678 20010228 <--

L134 ANSWER 121 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 88

TI The rplK gene of **Corynebacterium** glutamicum and its use in increasing yields of lysine in fermentation

SO Eur. Pat. Appl., 21 pp.

CODEN: EPXXDW

IN Wehmeier, Lutz; Tauch, Andreas; Puehler, Alfred; Kalinowski, Joern; Moeckel, Bettina

AN 2001:747222 HCAPLUS

DN 135:287596

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1143003	A2	20011010	EP 2001-105928	20010309 <--
EP 1143003	A3	20011114		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
DE 10017057	A1	20011011	DE 2000-10017057	20000405 <--
CA 2340300	AA	20011005	CA 2001-2340300	20010402 <--
ZA 2001002776	A	20011005	ZA 2001-2776	20010404 <--
CN 1316516	A	20011010	CN 2001-112451	20010404 <--
BR 2001001319	A	20011106	BR 2001-1319	20010405 <--
JP 2002051789	A2	20020219	JP 2001-107048	20010405 <--
US 2003148476	A1	20030807	US 2002-302931	20021125

L134 ANSWER 122 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 89

TI **Corynebacterium** dapC gene and transaminase and recombinant coryneform bacteria for L-lysine preparation

SO Eur. Pat. Appl., 24 pp.

CODEN: EPXXDW

IN Moeckel, Bettina; Weissenborn, Anke; Pfefferle, Walter; Hartmann, Michael; Kalinowski, Joern; Puehler, Alfred

AN 2001:709790 HCAPLUS

DN 135:283989

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1136559	A2	20010926	EP 2001-103850	20010216 <--
EP 1136559	A3	20031210		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
DE 10014546	A1	20010927	DE 2000-10014546	20000323 <--
CA 2339307	AA	20010923	CA 2001-2339307	20010321 <--
AU 2001028163	A5	20020725	AU 2001-28163	20010321 <--
ZA 2001002385	A	20010926	ZA 2001-2385	20010322 <--
JP 2001299372	A2	20011030	JP 2001-83004	20010322 <--
CN 1319668	A	20011031	CN 2001-110011	20010322 <--
US 2001049123	A1	20011206	US 2001-813919	20010322 <--
US 6740742	B2	20040525		
BR 2001001151	A	20011030	BR 2001-1151	20010323 <--

L134 ANSWER 123 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 90

TI The glyA gene of **Corynebacterium** glutamicum and its inactivation in increasing yields of amino acids in fermentation

SO Eur. Pat. Appl., 21 pp.

CODEN: EPXXDW

IN Ziegler, Petra; Eggeling, Lothar; Sahm, Hermann; Thierbach, Georg; Pfefferle, Walter

AN 2001:432944 HCAPLUS

DN 135:43451

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1106695	A2	20010613	EP 2000-710033	20001115 <--
EP 1106695	A3	20010704		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

IE, SI, LT, LV, FI, RO				
DE 19959329	A1	20010613	DE 1999-19959329	19991209 <--
CA 2325593	AA	20010609	CA 2000-2325593	20001206 <--
ZA 2000007271	A	20010607	ZA 2000-7271	20001207 <--
CN 1305009	A	20010725	CN 2000-134035	20001207 <--
BR 2000005798	A	20011120	BR 2000-5798	20001208 <--
US 2002072098	A1	20020613	US 2000-731826	20001208 <--
US 6596516	B2	20030722		
JP 2001190296	A2	20010717	JP 2000-376435	20001211 <--

L134 ANSWER 124 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 91

TI The sucC and sucD genes of **Corynebacterium** glutamicum and their use in increasing yields of lysine in fermentation

SO Eur. Pat. Appl., 26 pp.

CODEN: EPXXDW

IN Mockel, Bettina; Pfefferle, Walter; Marx, Achim

AN 2001:396522 HCAPLUS

DN 135:2879

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1103611	A1	20010530	EP 2000-125527	20001122 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
DE 19956686	A1	20010531	DE 1999-19956686	19991125 <--
CA 2324496	AA	20010525	CA 2000-2324496	20001121 <--
ZA 2000006884	A	20010525	ZA 2000-6884	20001123 <--
CN 1298019	A	20010606	CN 2000-132540	20001124 <--
JP 2001190290	A2	20010717	JP 2000-358256	20001124 <--
BR 2000005608	A	20010717	BR 2000-5608	20001127 <--

L134 ANSWER 125 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 92

TI The ptsH gene of **Corynebacterium** glutamicum and its use in increasing yields of lysine in fermentation

SO Ger. Offen., 10 pp.

CODEN: GWXXBX

IN Farwick, Mike; Moeckel, Bettina; Pfefferle, Walter

AN 2001:523505 HCAPLUS

DN 135:121253

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10001101	A1	20010719	DE 2000-10001101	20000113 <--
AU 2000072548	A5	20010726	AU 2000-72548	20001228 <--
US 2002094554	A1	20020718	US 2001-755187	20010108 <--
US 2004005675	A9	20040108		
CA 2328583	AA	20010713	CA 2001-2328583	20010110 <--
ZA 2001000332	A	20010726	ZA 2001-332	20010111 <--
EP 1118666	A1	20010725	EP 2001-100695	20010112 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2001224390	A2	20010821	JP 2001-5671	20010112 <--
CN 1319667	A	20011031	CN 2001-100614	20010112 <--
BR 2001000063	A	20020305	BR 2001-63	20010112 <--
US 2002090700	A1	20020711	US 2001-819930	20010329 <--
US 2003224499	A9	20031204		
US 6818432	B2	20041116		

L134 ANSWER 126 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Genetically modified Coryneform bacteria with overexpressed pgsA2 gene and uses thereof in fermentative preparation of L-amino acids

SO PCT Int. Appl., 38 pp.

CODEN: PIXXD2

IN Nampoothiri, Madhavan; Moeckel, Bettina; Pfefferle, Walter; Eggeling, Lothar; Sahm, Hermann

AN 2001:816923 HCAPLUS

DN 135:353875
PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 2001083766 A1 20011108 WO 2001-EP4704 20010426 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU,
ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
DE 10021829 A1 20011108 DE 2000-10021829 20000504 <--
EP 1278865 A1 20030129 EP 2001-940367 20010426
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

L134 ANSWER 127 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Genetically modified Coryneform bacteria with overexpressed cdsA gene and
uses thereof in fermentative preparation of L-amino acids

SO PCT Int. Appl., 39 pp.

CODEN: PIXXD2

IN Nampoothiri, Madhavan; Moeckel, Bettina; Pfefferle, Walter; Eggeling,
Lothar; Sahm, Hermann

AN 2001:816922 HCAPLUS

DN 135:353874

PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 2001083765 A2 20011108 WO 2001-EP3704 20010331 <--
WO 2001083765 A3 20020404
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU,
ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
DE 10021828 A1 20011108 DE 2000-10021828 20000504 <--
EP 1278861 A2 20030129 EP 2001-933786 20010331
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

L134 ANSWER 128 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Genetically modified Coryneform bacteria with overexpressed fadD15 gene
and uses thereof in fermentative preparation of L-amino acids

SO PCT Int. Appl., 46 pp.

CODEN: PIXXD2

IN Nampoothiri, Madhavan; Moeckel, Bettina; Pfefferle, Walter; Eggeling,
Lothar; Sahm, Hermann

AN 2001:816916 HCAPLUS

DN 135:353870

PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 2001083759 A1 20011108 WO 2001-EP4706 20010426 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU,
ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,

DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
 BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
 DE 10021831 A1 20011108 DE 2000-10021831 20000504 <--
 EP 1278857 A1 20030129 EP 2001-940368 20010426
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

L134 ANSWER 129 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Ready-to-use preparation for oxidative dyeing of keratin fibers

SO Braz. Pedido PI, 49 pp.

CODEN: BPXXDX

IN Plos, Gregory; Lagrange, Alain

AN 2001:744687 HCAPLUS

DN 135:261997

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	BR 2000004602	A	20010123	BR 2000-4602	20000922 <--
	FR 2798854	A1	20010330	FR 1999-11967	19990924 <--
	FR 2798854	B1	20011116		
	EP 1086684	A1	20010328	EP 2000-402544	20000914 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	AU 735052	B2	20010628	AU 2000-59491	20000919 <--
	CA 2319852	AA	20010324	CA 2000-2319852	20000922 <--
	RU 2193392	C2	20021127	RU 2000-124313	20000922 <--
	CN 1296812	A	20010530	CN 2000-128195	20000923 <--
	JP 2001139441	A2	20010522	JP 2000-291289	20000925 <--
	US 6730133	B1	20040504	US 2000-668166	20000925

L134 ANSWER 130 OF 136 WPIDS COPYRIGHT 2004 THE THOMSON CORP on STN

TI New mutant coryneform bacterium, useful for production of amino acids, especially lysine, has increased activity of acyl-CoA synthase.

PI DE 10021831 A1 20011108 (200204)* 14 C07H021-00 <--
 WO 2001083759 A1 20011108 (200204) EN C12N015-52 <--
 RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
 NL OA PT SD SE SL SZ TR TZ UG ZW
 W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM
 DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC
 LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE
 SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
 AU 2001073971 A 20011112 (200222) C12N015-52 <--
 US 2002042107 A1 20020411 (200227) C12Q001-68 <--
 EP 1278857 A1 20030129 (200310) EN C12N015-52
 R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT
 RO SE SI TR
 KR 2002097248 A 20021231 (200330) C12N001-21 <--
 IN EGGELING, L; MADHAVAN, N; MOECKEL, B; PFEFFERLE, W; SAHM, H; MOCKEL, B;
 NAMPOOTHIRI, K M; NAMPOOTHIRI, M

L134 ANSWER 131 OF 136 WPIDS COPYRIGHT 2004 THE THOMSON CORP on STN

TI New mutant coryneform bacterium, useful for production of amino acids, especially lysine, has increased activity of CDP-diacylglycerol-3-phosphate 3-phosphatidyltransferase.

PI DE 10021829 A1 20011108 (200204)* 14 C07H021-00 <--
 WO 2001083766 A1 20011108 (200204) EN C12N015-54 <--
 RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
 NL OA PT SD SE SL SZ TR TZ UG ZW
 W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM
 DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC
 LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE
 SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
 AU 2001073970 A 20011112 (200222) C12N015-54 <--
 US 2002155555 A1 20021024 (200273) C12P013-08 <--
 EP 1278865 A1 20030129 (200310) EN C12N015-54

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT
RO SE SI TR

IN KR 2002097244 A 20021231 (200330) C12N001-21 <--
EGGELING, L; MADHAVAN, N; MOECKEL, B; PFEFFERLE, W; SAHM, H; MOCKEL, B;
NAMPOOTHIRI, K M; NAMPOOTHIRI, M

L134 ANSWER 132 OF 136 WPIDS COPYRIGHT 2004 THE THOMSON CORP on STN
TI New mutant coryneform bacterium, useful for production of amino acids,
especially lysine, has increased activity of phosphatidate-cytidylyl
transferase.

PI DE 10021828 A1 20011108 (200203)* 16 C07H021-00 <--
WO 2001083765 A2 20011108 (200203) EN C12N015-54 <--
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
NL OA PT SD SE SL SZ TR TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM
DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC
LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE
SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

AU 2001060174 A 20011112 (200222) C12N015-54 <--
EP 1278861 A2 20030129 (200310) EN C12N015-54
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT
RO SE SI TR

IN KR 2002097245 A 20021231 (200330) C12N001-21 <--
US 2004092710 A1 20040513 (200432) C07K001-00
EGGELING, L; MOECKEL, B; NAMPOOTHIRI, M; PFEFFERLE, W; SAHM, H; MOCKEL, B;
NAMPOOTHIRI, K M

L134 ANSWER 133 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN
TI The complete sequence of the 1,683-Kb pSymB megaplasmid from the N2-fixing
endosymbiont Sinorhizobium meliloti
SO Proceedings of the National Academy of Sciences of the United States of
America (2001), 98(17), 9889-9894
CODEN: PNASA6; ISSN: 0027-8424

AU Finan, Turlough M.; Weidner, Stefan; Wong, Kim; Buhrmester, Jens; Chain,
Patrick; Vorholter, Frank J.; Hernandez-Lucas, Ismael; Becker, Anke;
Cowie, Alison; Gouzy, Jerome; Golding, Brian; Puhler, Alfred

AN 2001:634533 HCAPLUS
DN 136:242629

L134 ANSWER 134 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 93
TI In vitro protein synthesis using a novel ATP regeneration system that
prevents catabolism of certain amino acids
SO PCT Int. Appl., 57 pp.
CODEN: PIXXD2

IN Swartz, James R.; Kim, Dong-Myung
AN 2000:666906 HCAPLUS
DN 133:248683

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000055353	A1	20000921	WO 2000-US7095	20000315
W: AU, CA, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6168931	B1	20010102	US 1999-270814	19990317 <--
EP 1177311	A1	20020206	EP 2000-923078	20000315 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002538832	T2	20021119	JP 2000-605770	20000315 <--
US 6337191	B1	20020108	US 2000-621339	20000721 <--
CA 2428693	AA	20020523	CA 2000-2428693	20001114 <--
WO 2002040497	A1	20020523	WO 2000-US31449	20001114 <--
W: AU, CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				

AU 2001017678 A5 20020527 AU 2001-17678 20001114 <--
 EP 1341802 A1 20030910 EP 2000-980413 20001114
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, FI, CY, TR
 JP 2004513652 T2 20040513 JP 2002-543505 20001114
 US 2002081660 A1 20020627 US 2001-948815 20010907 <--

L134 ANSWER 135 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Polyhydroxyalkanoates of narrow molecular weight distribution prepared
 using transgenic organisms with increased carbon flow to precursors

SO U.S., 95 pp., Cont.-in-part of U.S. Ser. No. 673,388.

CODEN: USXXAM

IN Asrar, Jawed; Mitsky, Timothy A.; Shah, Devang T.

AN 2000:490831 HCAPLUS

DN 133:119042

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6091002	A	20000718	US 1997-912205	19970815
	US 5959179	A	19990928	US 1996-614877	19960313
	US 5942660	A	19990824	US 1996-628039	19960404
	US 5958745	A	19990928	US 1996-673388	19960628
	US 6228623	B1	20010508	US 1999-440400	19991115 <--

L134 ANSWER 136 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Methods of optimizing substrate pools and biosynthesis of
 hydroxybutyrate-hydroxyvalerate copolymer in bacteria and plants

SO U.S., 86 pp., Cont. of U. S. Ser. No. 614,877.

CODEN: USXXAM

IN Gruys, Kenneth James; Mitsky, Timothy Albert; Kishore, Ganesh Murthy;
 Slater, Steven Charles; Padgett, Stephen Rogers; Stark, David Martin

AN 1999:537979 HCAPLUS

DN 131:154484

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5942660	A	19990824	US 1996-628039	19960404
	US 5959179	A	19990928	US 1996-614877	19960313
	US 5958745	A	19990928	US 1996-673388	19960628
	US 6091002	A	20000718	US 1997-912205	19970815
	US 6228623	B1	20010508	US 1999-440400	19991115 <--
	US 2003028917	A1	20030206	US 2001-942891	20010830

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COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

396.40

396.61

SESSION WILL BE HELD FOR 60 MINUTES

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LOGINID:sssptaul85rqp

PASSWORD:

* * * * * RECONNECTED TO STN INTERNATIONAL * * * * *

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 HCAPLUS, NTIS, ESBIOBASE, BIOTECHNO, WPIDS' AT 15:29:55 ON 29 NOV 2004

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FILE 'SCISEARCH' ENTERED AT 15:29:55 ON 29 NOV 2004

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COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	396.40	396.61

=> d ab 91,92,96,97,105 1121

L121 ANSWER 91 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
AB DERWENT ABSTRACT:

NOVELTY - A polypeptide, of a **Corynebacterium**-originated **glucose-6-phosphate dehydrogenase**, has the fully defined 484 amino acid sequence (S2) given in the specification, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following: (1) a polypeptide based on sequence (S2) but in which the Ala at number 213 is replaced by other amino acid and has **glucose-6-phosphate dehydrogenase (G6PDH)** activity; (2) a polypeptide with the fully defined 484 amino acid sequence (S12) given in the specification; (3) a polypeptide based on sequence (S2) but with some amino acids other than Ala at number 213 deleted, substituted or added and having **G6PDH** activity; (4) a polypeptide based on sequence (S12) but with some amino acids other than Ala at number 213 deleted, substituted or added and having **G6PDH** activity; (5) a DNA encoding any of the polypeptides; (6) a DNA with the fully defined 1452 base sequence (N1) given in the specification; (7) a DNA that contains a codon-substituted base sequence encoding an amino acid other than Ala in the base sequence from numbers 637-639 encoding Ala in sequence (S2); (8) a DNA with the fully defined 1452 base sequence (N11) given in the specification; (9) a DNA hybridizable with a DNA having a base sequence of (N1) under stringent conditions, which contains a base sequence containing a codon-substituted base sequence encoding an amino acid other than Ala in sequence (N1) and encodes a polypeptide with **G6PDH** activity; (10) a DNA hybridizable with a DNA having a base sequence of (N1) under stringent conditions, in which the base sequence contains a base at number 637 corresponding to the base for adenine in the base sequence (N1) and which encodes a polypeptide with **G6PDH** activity; (11) a recombinant DNA obtained after integrating the DNA into a vector; (12) a plasmid pCRBzwfM that can be sustained by an *Escherichia coli* TOP10 (FERM BP-7135); (13) a transformant obtained by transferring the recombinant DNA or plasmid into a host cell; (14) a process for producing the polypeptide; and (15) a method for producing L-amino acid by using NADPH in the culture for biosynthesis before accumulation and collection of the product.

BIOTECHNOLOGY - Preferred DNAs: Such recombinant DNA is a replicable recombinant DNA in a microorganism belonging to *Escherichia coli* or **Corynebacterium**. Preferred Transformants: Such host cell is

particularly a microorganism which can produce L-amino acid, which is especially *Escherichia coli* or **Corynebacterium**. A transformant carries any of the DNAs on an artificial chromosome after integration. The **Corynebacterium** microorganism is particularly **Corynebacterium glutamicum**. Preparation: The polypeptide may be produced by culturing the transformant before accumulating and isolating the product from the cultured material (claimed).

USE - The polypeptide is useful for improving the productivity of an L-amino acid, e.g., L-lysine (claimed).

ADVANTAGE - With the microbe, elevated productivity of L-amino acid is observed. 58M strain containing the modified protein produced 63.3 g/l of L-lysine, compared to the parent Number 58 at 49.7 g/l.

EXAMPLE - The **G6PDH** gene was isolated from **Corynebacterium glutamicum**, and modified for constructing a vector then a transformant *Escherichia coli* for L-lysine production, with Number 58M strain producing 63.3 g/l of L-lysine, compared to the parent

Number

58 at 49.7 g/l. (49 pages)

L121 ANSWER 92 OF 111 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
AB Preparing L-amino acids by fermenting coryneform bacteria, comprising fermenting the L-amino acid-producing bacteria in which at least the **glucose-6-phosphate-dehydrogenase** (EC-1.1.1.49) (**zwf**) gene is amplified, and concentrating and isolating the L-amino acid produced, is new. Also claimed are: plasmid pEC-T18mob2 deposited under accession number DSM 13244 in *Escherichia coli* K-12 DH5-alpha; and a coryneform microorganism, in particular of the genus **Corynebacterium**, transformed with the above vector which additionally contains the **zwf** gene. The L-amino acids produced are used in animal nutrition, human medicine and the pharmaceutical industry. In an example, vector pEC-T18mob2 was constructed and transformed into *E. coli* DH5-alpha and positive cells were selected on Luria-Bertani medium containing 5 mg/l tetracycline. Plasmid DNA was isolated and checked with EcoRI and HindIII by agarose gel electrophoresis. (32pp)

L121 ANSWER 96 OF 111 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 78
AB Isolated nucleic acid mols., designated MP nucleic acid mols., are provided which encode novel metabolic pathway (MP) proteins from **Corynebacterium glutamicum**. The invention also provides antisense nucleic acid mols., recombinant expression vectors containing MP nucleic acid mols., and host cells into which the expression vectors have been introduced. The invention still further provides isolated MP proteins, mutated MP proteins, fusion proteins, antigenic peptides and methods for the improvement of production of a desired compound from *C. glutamicum* based on genetic engineering of MP genes in this organism. In particular, genes **metZ** (O-acetylhomoserine sulphydrylase), **metC** (cystathionine β -lyase) and **RXA00657** (encoding a transcriptional regulator) are provided which can be used to improve production of amino acids such as methionine and lysine.

L121 ANSWER 97 OF 111 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 79
AB A method of increasing the yields of L-amino acids from microbial producers by increasing intracellular reducing power (as NADPH) is described. This is achieved by lowering intracellular levels of phosphoglucose isomerase by mutation of the gene encoding the enzyme. Specifically, mutation of the **Corynebacterium glutamicum** **pgi** gene is demonstrated. This increases the flow of carbon through the pentose phosphate pathway and therefore the generation of NADPH. Disruptive integration of the **pgi** gene of *C. glutamicum* is demonstrated. Inactivation of the enzyme raised yields of lysine from 42 g lysine/g glucose consumed to 52 g lysine/g glucose consumed. Inactivation of the **pfkA** gene encoding 6-phosphofructokinase did not have the same effect, but created cells unable to utilize glucose.

L121 ANSWER 105 OF 111 HCAPLUS COPYRIGHT 2004 ACS on STN

AB The total reducing activity (TRA) of cells was used to estimate the physiolog. activity of **Corynebacterium glutamicum** under conditions of L-**lysine synthesis**. This was estimated as the rate of reduction of 2,3,5- triphenyltetrazolium chloride by intact cells. TRA of cells was linearly correlated with the intracellular concns. of RNA and the bacterial growth rate. It was concluded that this activity reflected the rate of energy generation in cells. A decrease in TRA of growing cells was related to an increase in bacterial **lysine synthesis** activity. Alteration in metabolic pathway functioning and an increase in the intracellular concns. of lysine precursors favored an increase in the rate of **lysine synthesis** by bacterial cells when cellular TRA was decreasing.

=> d ab 4,10,94,113,115,117,120 1134

L134 ANSWER 4 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN

AB The invention provides protein and DNA sequences of *opcA* and *zwf* genes from **Corynebacterium glutamicum**. The invention further provides new measures for improved fermentative preparation of amino acids, in particular L-lysine and L-threonine.

L134 ANSWER 10 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN

AB DERWENT ABSTRACT:

NOVELTY - Fermentative preparation of L-amino acids, particularly L-threonine, comprises fermentation of the microorganisms of the Enterobacteriaceae family which produce the desired L-amino acids and in which the **poxB** gene or nucleotide sequences which code for it are attenuated, preferably eliminated.

DETAILED DESCRIPTION - The fermentative preparation of L-amino acids, particularly L-threonine, comprises: (a) fermentation of the microorganisms of the Enterobacteriaceae family which produce the desired L-amino acids and in which the **poxB** gene or nucleotide sequences which code for it are attenuated, preferably eliminated; (b) concentration of the L-amino acid in the medium or in the cells of the bacteria; and (c) isolation of the L-amino acid. INDEPENDENT CLAIMS are also included for the following: (1) a microorganism of the Enterobacteriaceae family which produces L-amino acids in which the **poxB** gene or nucleotide sequences which code for it are attenuated, particularly eliminated, and which have a resistance to alpha-amino-beta-hydroxyvaleric acid and optionally a compensatable partial need for L-isoleucine; (2) the *Escherichia coli* K-12 strain MG244DELTAposB deposited at the Deutsche Sammlung für Mikroorganismen und Zellkulturen (DSMZ, German Collection of Microorganisms and Cell Cultures, Braunschweig, Germany) under number DSM 13762; (3) plasmid pMAK705DELTApoxB which contains parts of the 5' and 3' region of the **poxB** gene comprising a sequence of 1454 base pairs (bp), given in the specification; (4) plasmids pMW218gdhA and pMW219rhtC fully described in the specification; (5) an isolated polynucleotide from microorganisms of the Enterobacteriaceae family containing a polynucleotide sequence which codes for the 5' and 3' region of the **poxB** gene comprising a sequence of 1448 bp, given in the specification, as a constituent of plasmids for position-specific mutagenesis of the **poxB** gene; and (6) a strain of the Enterobacteriaceae family, which produces L-threonine and contains a mutation in the **poxB** gene corresponding to a defined 1448 bp sequence, given in the specification.

BIOTECHNOLOGY - Preferred Method: The method **prepares L-threonine**, L-valine, or L-lysine. The fermentation process employs microorganisms in which further genes of the **biosynthesis** pathway of the desired L-amino acid are additionally enhanced, or in which the metabolic pathways that reduce the formation of the desired L-amino acid are partly eliminated. The method comprises

attenuating, particularly eliminating, expression of the polynucleotide(s) which code for the **poxB** gene, or reducing the regulatory and/or catalytic properties of the polypeptide (enzyme protein) for which the polynucleotide **poxB** codes. In the preparation of L-amino acids, the method comprises fermenting microorganisms of the Enterobacteriaceae family in which one or more genes selected from the following is enhanced, preferably overexpressed, at the same time: (i) the thrABC operon which codes for aspartate kinase, homoserine dehydrogenase, homoserine kinase and threonine synthase; (ii) the pyc gene which codes for pyruvate carboxylase; (iii) the pps gene which codes for phosphoenol pyruvate synthase; (iv) the ppc gene which codes for phosphoenol pyruvate carboxylase; (v) the pntA and pntB genes which code for transhydrogenase; (vi) the rhtB gene which imparts homoserine resistance; (vii) the mqo gene which codes for malate:quinone oxidoreductase; (viii) the rhtC gene which imparts threonine resistance; (ix) the thrE gene which codes for threonine export; and (x) the gdhA gene which codes for glutamate dehydrogenase. One or more of the genes selected from the tdh gene which codes for threonine dehydrogenase, the mdh gene which codes for malate dehydrogenase, the gene product of the open reading frame (ORF) yjfa or ytfP, and the pckA gene which codes for the enzyme phosphoenol pyruvate carboxykinase, may be attenuated, particularly eliminated or reduced in expression, at the same time. The **preparation** of L-threonine also comprises employing the strain MG442DELTApoxB transformed with the plasmid pMW218gdhA or pMW219rhtC fully defined in the specification. For the **preparation** of L-lysine, the strain TOC21RDELTApoxB is employed, while in the preparation of L-valine, the strain B-12288DELTApoxB is employed.

USE - The method is useful for **preparing** L-amino acids, particularly L-threonine. L-amino acids, specifically L-threonine, L-lysine and L-valine, are used in human medicine, in the pharmaceutical industry and in the food industry, especially in animal nutrition.

EXAMPLE - Parts of the 5' and 3' region of the **poxB** gene were amplified from Escherichia coli K12 by a polymerase chain reaction (PCR). A DNA fragment about 500 base pairs (bp) from the 5' region of the **poxB** gene (called poxB1) and a DNA approximately 750 bp from the 3' region of the **poxB** gene (called poxB2) was amplified by PCR. PCR products were ligated to the vector pCR2.1TOPO, which was transformed into E. coli strain TOP10F'. Plasmid carrying cells were selected and plasmid DNA was isolated. Vector pCR2.1TOPOpoxB1 was cleaved with Ecl136II and XbaI, and after separation in 0.8 % agarose gel, poxB1 fragment was isolated. After isolation of the plasmid DNA, vector pCR2.1TOPOpoxB2 was cleaved with EcoRV and XbaI, and ligated with the poxB1 fragment isolated. The **poxB** allele was isolated from the vector pCR2.1TOPODELTApoxB after restriction, and ligated with the plasmid pMAK705. A ligation batch was transformed in DH5alpha and plasmid-carrying cells were selected on Luria-Bertani (LB) agar. Successful cloning was shown after isolation of the plasmid DNA and cleavage with HindIII and XbaI. The replacement vector formed, pMAK705DELTApoxB. For the replacement of chromosomal **poxB** gene with plasmid-coded deletion construct, MG442 was transformed with the plasmid pMAK705DELTApoxB. MG442DELTApoxB was multiplied on minimal medium, and formation of L-threonine was checked in batch cultures of 10 ml contained in 100 ml conical flasks. Concentration of L-threonine formed was determined with an amino acid analyzer by ion exchange chromatography and post-column reaction with ninhydrin detection. MG442 formed 1.5 g/l L-threonine, while MG442DELTApoxB formed 2.6 g/l L-threonine. (43 pages)

oxidase (EC 1.2.2.2) is attenuated, in particular eliminated. The following steps being carried out: (a) fermentation of D-pantothenic acid-producing bacteria in which at least the gene which codes for **pyruvate oxidase PoxB** is attenuated; (b) concentration of the D-pantothenic acid in the medium or in the cells of the bacteria; and (c) isolation of the D-pantothenic acid produced. The strains employed optionally already produce D-pantothenic acid before attenuation of the **poxB** gene. A new nucleotide sequences, which lie upstream and downstream of the **poxB** gene region have been found. It has been found that these polynucleotides are useful in the production of mutants with an attenuated, in particular eliminated, **poxB** gene. It has also been found that coryneform bacteria produce pantothenic acid in an improved manner after attenuation of the **poxB** gene.

L134 ANSWER 113 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN

AB The invention concerns a procedure for the fermentative production of L-amino acids, in particular L-threonine, in which the **poxB** gene of an L-amino acid-producing microorganism of the family Enterobacteriaceae is inactivated and the resulting mutant is cultured to produce the L-amino acid. The mutant may addnl. overexpress another gene which enhances **L-amino acid biosynthesis**. Thus, a deletion mutation was introduced into the **poxB** gene of L-threonine-producing E. coli MG442. This mutant was further transformed with expression plasmids for the *gdhA* or *rhtC* genes. L-Threonine production with the *rhtC* gene-expressing, **DELTA.poxB** strain was increased approx. 2.6-fold relative to the parent strain.

L134 ANSWER 115 OF 136 BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN

AB An isolated polynucleotide (I) is claimed. (I) contains a sequence that is at least 70% identical to a sequence that encodes a protein containing the fully defined 579 amino acid sequence (S2), encodes a protein at least 70% identical with (S2), a sequence complementary to the above sequence, or a sequence containing at least 15 consecutive bases from the above sequences. Also claimed are: a vector; coryneform bacteria, functioning as host cell, that include a deletion or insertion in the **poxB** gene; and production (M) of L-amino acids, e.g. L-lysine, by fermenting bacteria in which the **poxB** gene is at least partly suppressed, where the production of L-lysine involving overexpressing at least one of the genes, e.g. dihydrodipicolinate-synthase, pyruvate-carboxylase, succinylidiaminopimelate-desuccinylase, glyceraldehyde-3-phosphate-dehydrogenase (EC-1.2.1.12), etc. (I) used for insertional mutagenesis of the **poxB** gene in coryneform bacteria being used for fermentative production of L-amino acids, e.g. L-lysine, which is used in human medicine, foods and animal nutrition. (I) is also useful as a source of DNA probes and DNA primers for isolation of related sequences. (21pp)

L134 ANSWER 117 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 84

AB The invention relates to a process for the preparation of L-amino acids by fermentation of coryneform bacteria, which comprises carrying out the following steps: a) fermentation of the desired L-amino acid-producing bacteria in which at least the *zwf* gene is amplified, b) concentration of the L-amino acid in the medium or in the cells of the bacteria and, c) isolation of the L-amino acid produced.

L134 ANSWER 120 OF 136 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 87

AB The invention provides protein and DNA sequences of *opca* genes from coryneform bacteria. The invention further provides new measures for improved fermentative preparation of amino acids, in particular L-lysine, L-threonine, L-isoleucine and L-tryptophan.

=> save temp 1121 zwf/a

ANSWER SET L121 HAS BEEN SAVED AS 'ZWF/A'

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ANSWER SET L134 HAS BEEN SAVED AS 'POXB/A'

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COST IN U.S. DOLLARS

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TOTAL
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FULL ESTIMATED COST

420.33

420.54

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CA SUBSCRIBER PRICE

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-5.60

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